THE AMERICAN ARCHITECT

VOL. CXX WEDNESDAY, AUGUST 17, 1921 NUMBER 2374

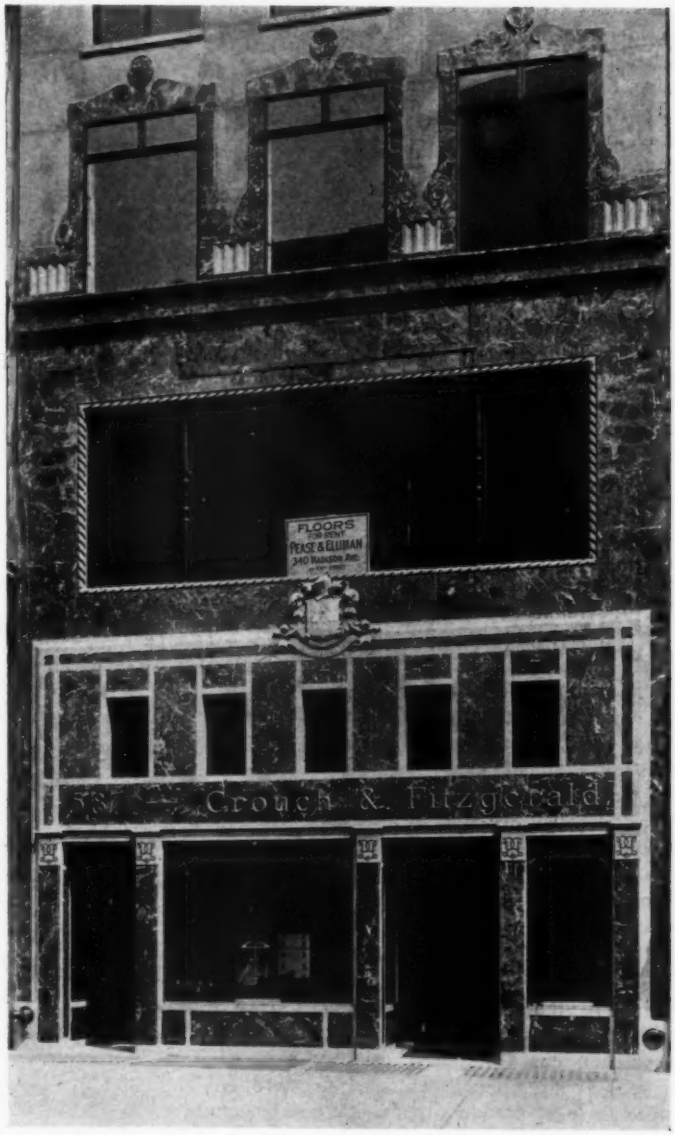
NEW FIFTH AVENUE SHOP FRONTS

A Further Record of the Consistent Growth and Artistic Development of New York's Most Important Thoroughfare

THE man born in New York more than fifty years ago regards his city with respect and venerates its traditions. He has been compelled to watch the transformation of localities which during his youthful days formed the most dignified parts of the city. As a young man, he grew familiar with the location of commercial activities. The financial district was always at and near to Wall Street. Down the winding way of Maiden Lane, the jewelers, both wholesale and retail, had their location. Along Front and Water Streets the shipping men had their small warehouses and offices. Here along the river front the lofty clipper ships, the squat coasters and the dingy craft that thronged the harbor, sent their bowstrips across Water Street, forming an arch of spars and loosened rigging. Just to the North, was the swamp where for almost a century the dealers in leather and hides jealously prevented the encroachments of any other class of merchandising. To the North and West, along Broadway, crossed by Leonard and Worth and Franklin Streets, were the dry goods men. Canal Street was the division line in the 50's. South was the commercial city, North the amusement and residential centers.

When the so-called Greek revival in architectural design dominated the better class of domestic architecture in New York, Washington Square became the very hub of aristocracy.

Stretching North from this group of stately houses that fringed "the Square," was Fifth Avenue. New York's "400" owned this street. From



G. A. & H. BOEHM, *ARCHITECTS*

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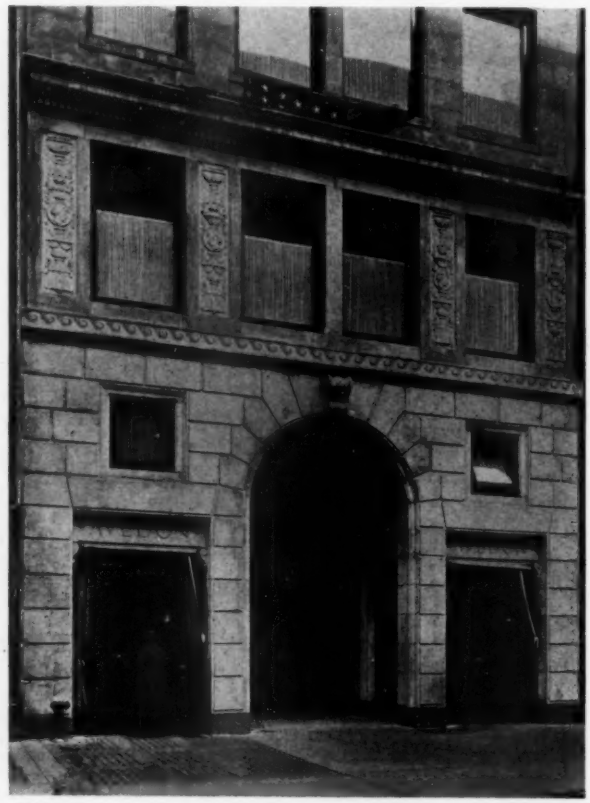
where now stands the Washington Arch, to Twenty-third Street, the ultra rich, the socially prominent had their city homes. There, too, were the many clubs, where the solid business men of New York congregated and where membership was the "hallmark of good social standing." North from Twenty-third Street as the city grew, were built other stately houses, fine churches. When the city's growth had on Fifth Avenue reached to Forty-second Street, the "social climbers" who desired to make their homes in this aristocratic neighborhood were forced to get as near to "the Avenue" as they could, so "Murray Hill," or the Madison Avenue section, sprang into social prominence.

So, then, the New Yorker, as late as 1869 to 1871, could clamber atop of one of the "blue busses" at Washington Square and ride near to Fifty-ninth Street. He would see the houses of every one in New York that was "worth while." He would see the clubs and churches, each of the highest exclusiveness. There was no suggestion of "trade," no atmosphere of anything but the ultra aristocratic.

Fifth Avenue, as it exists today, is so widely different, so changed in aspect and character that it is a source of the most interesting study and provokes these perhaps tiresome reminiscenses from one who can remember this splendid thoroughfare for a period of more than half a century.



HARRY ALLAN JACOBS, *ARCHITECT*

FIFTH AVENUE, known as "the finest street in the world," has earned that title because it has received the most solicitous and watchful care on the part of those who owned it. The Fifth Avenue Association has for years jealously guarded this splendid street. Shopkeepers who have through misguided or incorrect ideas of artistic effect been misled, have been guided into proper paths.

The shop fronts that have from time to time been added, either as alterations to old structures or a prominent feature of new ones, have been influenced, to a great extent, by this valuable society.

The attempts of manufacturing industries to locate on intersecting streets near the Avenue have, after a most strenuous campaign, been induced to seek other locations. In short, the growth and development of Fifth Avenue has been so closely guarded and so intelligently supervised as to afford an example to other cities as to what could be accomplished in civic development when a correct spirit of co-operation had been thoroughly developed.

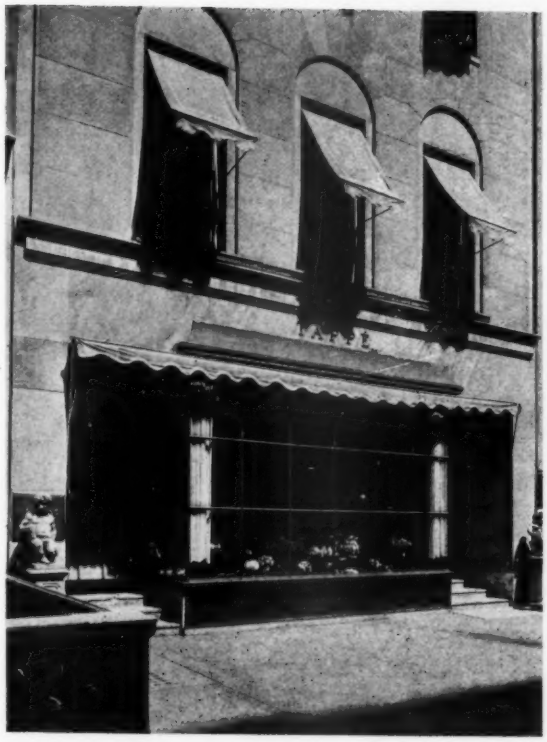
In a recent issue there was described a new and important building that occupies almost the focal center of Fifth Avenue. The formation of a new investment center in New York was encouraged and made possible because Fifth Avenue had become a street where retail merchandising had reached its most perfect state of development.

The class of shoppers that daily throng Fifth Avenue is, by reason of the high class of the shops, an investing lot of people. To be able to draw needed funds for a day's shopping almost next door to the shop where the day's purchases would commence. was a much appreciated convenience.

Further, the high class of banks and investment companies' buildings that now ornament the avenue, made it certain that the future progress of Fifth Avenue would not be retarded.

To the radical old New Yorker it savors of incongruity to find stores located in the very houses where, as a boy, he was wont to spend many social hours. But the compensation for this change is to be found in the fact that the new occupancy is so dignified and the artistic proprieties correctly carried out.

The illustrations of Fifth Avenue shop fronts accompanying this article are of most recent completion. They have been selected for that reason and

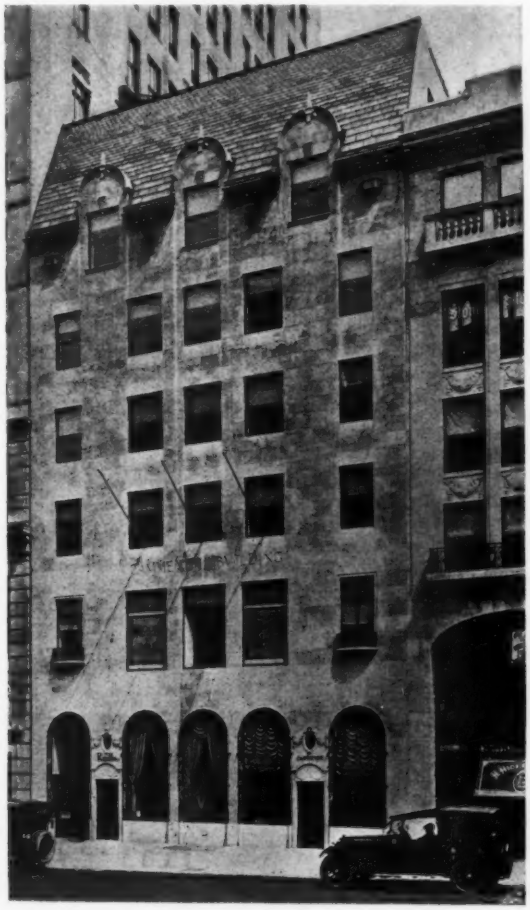


KENNETH M. MURCHISON, *ARCHITECT*

SEVERANCE & VAN ALEN, *ARCHITECTS*

not as isolated examples of the finer shops. The whole extent of Fifth Avenue from Thirty-fourth Street North to Fifty-ninth Street is in keeping and present plans for future developments insure that the Fifth Avenue of twenty years hence will yet be "the finest street in the world."

In conclusion, it may be well to refer to the effect of zoning restrictions on Fifth Avenue. Undoubtedly without these wise enactments even the influential



ROUSE & GOLDSTONE, *ARCHITECTS*

work of the Fifth Avenue Association would not have prevented sordid interests from ruining the aspect and general character of the Avenue in the same way as has been done on other important streets in New York.

The success of a thoroughfare that is the pride of every New Yorker and the admiration of every visitor to this city is mainly due to wise zoning restriction and the valuable work of the Fifth Avenue Association.

NOTES OF A ROTCH SCHOLAR

Conditions in Rome and Expenses of Traveling

By ROBERT M. BLACKALL

WITH the building business in America so flat that a great many men are not finding themselves fully occupied, there has no doubt occurred to some that perhaps during this idle period, time can be more profitably spent traveling in Europe until business picks up again. But to many of these has probably also come the thought as to how much such a trip would cost and whether conditions in Italy are such as to be beneficial for study. For this reason, I have jotted down the facts as they exist. All figures that I give have been seen or paid for by myself, and all statements are first-hand. The conditions stated are for Rome only.

General Conditions

Except for the strikes, conditions are exceedingly favorable for study and travel. There are no disturbances of any sort that bother a student. All the museums and galleries are open and permission to work is fairly easy to obtain, if one has proper credentials. Most of the galleries have rearranged their collections and hours of opening so that a Baedeker is of little aid and all galleries and museums have doubled the price of admission, it being now on the average of two lira a person for admittance. Trains run as irregularly as they always did, the fares being from three and one-half to five times what is stated in Baedeker's 1909 Central Italy. Trains are always crowded and the first one into a seat gets it. The fares are being changed faster than the tickets are issued, so that the price on the ticket, whether it be omnibus, train, street car or boat, is never right, and the only check one has is to watch what his neighbor pays. The conductors of trains are fairly honest and usually there is in the stations the latest price list of the tickets so that by a little observation, a check in the price can be kept. One should always allow plenty of time, two hours at least, to make a connection, as the average train is always late.

Living Conditions

Throughout Rome and, I understand, throughout Italy, all hotels, inns, pensions and restaurants have been listed into (1) de luxe, (2) 1st category, (3) 2nd category, (4) all others. Prices for rooms are regulated and posted at the present time in the rooms so that no extra or varying price can be charged. The law requires that each hotel or restaurant shall post the bill of fare in a conspicuous place, so that if one watches, he can check the meal price. The law also fixes the percentage of service, it being 15 to 20% in de luxe, 10 to 15% in 1st category, 7 to 10% in 2nd and 6% in 3rd. To the law enforced last March 1st, is added a governmental tax of 10% for de luxe class, 6% for 1st category, 4% for 2nd category and 2% for 3rd category, the tax being figured on the price of room and food only. This all seems as though there would be no trouble, no argument about the bill, no tips, etc. Well, don't believe it. Tipping has been greatly reduced, and one way to tell a foreigner is by the fact that he tips. The Italian with all the increased costs and service included in the bill, *never* tips. I have watched this carefully and the foreigner always is pounced on. If he refuses to tip, but graciously thanks the man, there will be more respect shown. But suppose we go into a hotel or restaurant. If a room is desired, always demand the price and then ask for a room at less cost and get the price settled. Never leave it until later. The proprietor may lawfully charge you correctly, but he gives you his best room. Proceed to the dining room. Generally there will be no list in sight and the waiter asks you what you will have. If one does not demand the list which by law is required, he will be charged double, as the waiter takes it for granted that you do not know there is a list. *Always ask for the list first.* If these things are done very little trouble will be experienced and costs will be materially reduced.

The cost of living (pension rates) per person per day are 60 lira and up for de luxe, 35 to 50 lira for 1st category, 25 to 40 lira for 2nd category, 30 and less for 3rd class.

While traveling three weeks, my costs for railway fares, 3rd class, and hotel bills only, not including anything else, averaged 48 lira a day.

Clothing

To the expense of room and food must be added the cost of clothing. Like all other costs in Rome, they are increasing all the time. The luxury tax of 10 per cent which went into effect last March 1st has brought everything up and the present tendency is upward. I have listed below the prices of some clothes taken from an average store. More can be paid, and a lower price can easily be found, but for a transient passing through Rome, I think the prices given are average.

Raincoat	500	lira
Overcoat	550	"
Shoes	90 to 190	"
Negligee Shirts	45	"
Golf Cap	42	"
Underclothing, Woolen Shirt	90	"
" Cotton Shirt	75	"

Stockings, Cotton	10 lira
" Wool	20 "
" English long	28 "
Suit of clothes .....590 to 875	"
Suit of clothes made to order	
	1000 lira and up

At practically all the stores, fixed prices are held to and it is the rare exception in the large towns to be able to beat down the prices.

Artists' Materials

Artists' materials are exceedingly high. A sheet of Waterman's double elephant costs 29.50 lira while the same size in Italian paper "Fabriano", which is not as good but the best Italy has, costs 6 lira. Winsor-Newton whole pans cost 30 lira, while a whole tube of Italian colors costs from 2 to 6 lira. The Italian goods are inferior to English, but a great deal less expensive. The rate of exchange has thrown all foreign goods out of sight. Alinari prints which before the war were 50 centesimo are now 2.75. Pencils run from 1.20 to 3.00 lira. Other materials are in proportion. Also, the Italian Government forbids the sale of any scales or measuring rods of anything but metric system. Therefore, bring your own scales, unless you intend to measure in meters.

I have heard it stated that one should allow $150 a month for traveling in England, $100 to $125 a month for France, and $80 to $100 for Italy. These are exceedingly variable figures as no two men travel alike, buy alike or include in their estimate either the whole amounts or the same things. General estimates are not very dependable. I have tried to give actual costs in lira, not dollars, and then each man can figure as he wishes. Personally, I believe it is a splendid time for a man to travel in Italy, France or England, and that conditions will get better, rather than worse. I do not believe there will be any revolution in Italy, and conditions this year are better than last year. With building slacking up in America, the young man cannot do better than to go abroad at the present time.

(NOTE.—The Italian lira, normal value 19.3 cts., was quoted at 5.53 cts. May 19, 1921, and 4.95 cts. on May 19, 1920, in New York.—Editors.)

A Review of American Architecture as Shown in the Recent Exhibition of The Societe des Artistes Francais

AN exhibit of photographs of a great number of notable buildings in the United States, public and private, constitutes an unusual feature of the annual exhibition of the Societe des Artistes Francais, popularly known as the Old Salon. Photographs of more than 300 exhibits from the leading American architects occupy a special section in the exhibition, a thing never before done in France.

The American collection was organized by a committee appointed by the American Institute of Architects.

M. Leandre Vaillat devotes a column and a half in the Paris *Temps* to a review of this exhibition. A correspondent to the Boston *Evening Transcript*, summarizes M. Vaillat's criticism as follows: On the whole his verdict is very favorable. He has evidently made a close and careful study of the exhibit. He speaks first of Major Lenfant's plan of the City of Washington, made in 1792, and then goes on to tell his readers about the so-called Colonial style as illustrated in the domestic architecture of the Atlantic States.

"One sees in the Grand Palais," he says, "few of those edifices which give to the Americans the illusion that they have a past, a past of their own, such as would call for the existence of archæological societies like our Vieux Paris. In the cities lined up along the Atlantic Coast from Canada down to Georgia, that is to say the cities which were first founded by the English colonists, one still finds many specimens of the English style called Colonial, which is nothing but a derivation from the Georgian or Adam style. It is characterized by 'apparent' bricks of a fine red tone contrasting with the decorative elements in woodwork painted white and with the verdure skilfully massed near the building. The woodwork is finely studied, with a profusion of slim columns. A colonnade of columns often precedes the principal body of the building with an effect of hospitable nobility."

"In the West and South," continues M. Vaillat, "in Florida and Texas, which came under the Spanish influence, one notes a different architecture, created by the Catholic missions coming from the Spanish colonies and for that reason called 'the mission style.'

"In the middle of the nineteenth century, Richardson, impressed by Roman art, applied its principles to churches, city halls, schoolhouses, and villas, and he found here and there a logical expression, not without a certain rudeness. Finally, in 1893, Burnham, in composing the ensemble of the Chicago Exposition, directed the attention of the young architects towards ancient Rome. Since that time the Americans have made sojourns in England to study

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domestic architecture, and in Italy through dilletantism; but they have learned their trade at the Ecole des Beaux Arts, and it is interesting to observe how much this school, so much decried at home, is appreciated abroad. The American architecture of today, that which we see in the Grand Palais, reflects diverse tendencies. But one cannot fail to note, in the work of the Americans, a knowledge of the old styles in their initial purity, and not in their successive deformities, a courageous affirmation of their purity and simplicity, and a superior taste, which makes acceptable certain sacrifices—a way of employing great blank surfaces in order to emphasize a charming and exceptional motive, and an ingenuous sensibility that leads them to treat the monuments of the past with new eyes, as it were, with an art brought back to its primitive simplicity and yet having a modern aspect."

The French writer goes on to speak of the buildings of the Massachusetts Institute of Technology in Cambridge, by Welles Bosworth: "a return to the impressive severity of the Doric; one forgets that upon the Doric have been piled up innumerable complications." So also, the works of the French architect, Paul Cret, now professor of archæology at the University of Pennsylvania: "Compare the Bureau of the American Republics which he built in Washington at the outset of his career there, and his library in Indianapolis more recent; in the first instance . . . he reflects the teachings of the Ecole des Beaux Arts, of which he is a graduate; in the second instance his style clarifies itself under the influence of what he sees about him."

Domestic architecture is exemplified in the American exhibit by examples of country houses, apartment houses, garden cities, workmen's houses, farm houses, hotels, clubs, etc. M. Vaillat speaks with enthusiasm of the villas in the Italian style designed by Charles Platt; of McGoodwin's English cottages; of Walker's and Gilette's Tudor or Sienese houses; of Hunt's 'mission style' houses in California, and of the works of Carrère & Hastings. He describes the Hotel Ponce de Leon in St. Augustine, 1887, in which one sees combined harmoniously the Spanish style and the American execution. He also devotes a considerable paragraph to the Colony Clubhouse on Long Island, by Delano & Aldrich, explaining in detail the scheme of the summer colony, which has no equivalent in France.

"Thus we have in this rapid review something like a faithful mirroring of the image of what the American loves. He readily retires in the evening to the country, which makes such a contrast to the immense building in which he pursues his business during the daytime. There he puts all his soul, heart and poetry. . . . It is a vigorous and necessary contrast to the intensive activity of his day; an expression of that leisure that is disappearing from our civilization. . . . Add a shade of meditation; the American envisages his dwelling as a church; there is in it a sort of mysticism that illumines also his conception of edifices serving the various needs of social life."

Even the much-maligned skyscraper comes in for a word of approval. Of the buildings and grounds of the San Diego Exposition our writer says: "There is a utilization of the terrain, an effect obtained from the hilly surroundings, a picturesque approach to the palaces by a great viaduct thrown across a ravine, which presents a striking and almost theatrical effect."

Summing up his impression, M. Vaillat concludes his review thus: "Veritable intelligence of the ancient styles, adaptation to contemporary life, minute, broad and frank study of the most varied programmes—this is the lesson which is offered by this exhibit. One should congratulate those who have brought it before us, and who have proved by their works the continuity in the United States of the French influence inaugurated by Major Lenfant, that old companion of Washington."

In Memory of J. Alder Weir

THE Century Club of New York, states the Boston *Evening Transcript* in its Art Notes, has published a handsome book on the life and works of the late Julian Alden Weir, containing many illustrations, an exhaustive list of his works, and several essays by his colleagues. Weir was one of the most popular of men among his fellow-artists, and, possibly, through the love and admiration for the man, his friends have been inclined to give to the artist an exaggerated importance. The first of the essays is "Julian Alden Weir" by Duncan Phillips, and this is followed by a discussion of "Weir, the Painter," by Emil Carlsen, "Weir" by Royal Cortissoz, "Reminiscences of Weir" by Childe Hassam, "The Tile Club" by J. B. Millet, "Weir, the Fisherman," by H. de Raasloff, and briefer notes in the form of letters from Augustus Vincent Tack and C. E. S. Wood.

Mr. Hassam's intimate reminiscences of Weir bring to notice many interesting traits and incidents. One of his anecdotes seems to amount to a claim that Weir was the first man to suggest the commissioning of Puvis de Chavannes to paint the mural decorations for the Boston Public Library. It appears that Weir, being in Durand-Ruel's Paris gallery, one day, met Stanford White there. "McKim's doing a library for Boston," said White. "Who's the man to make a big mural painting?" "Why, Puvis, of course," exclaimed Weir. They went from there to the Place Pigalle, found Puvis de Chavannes, "and we know the rest. He painted for Boston one of the most beautiful decorations in the world."

A DIFFERENCE of OPINION

H. Van Buren Magonigle Sharply Resents the Publication of His Competition Drawings and Raises Points That Should Be Seriously Debated.

The following correspondence, together with the editorial reference on page 117 are sufficiently explanatory. No further comment will be necessary.

June 24, 1921.

To the Editor,
THE AMERICAN ARCHITECT,
Dear Sir:

In reply to your letter of June 21st, the only model maker whose name comes to mind just now is Mr. Edwin T. Howes, and whose address is undoubtedly in the telephone book.

I take this occasion to speak to you about a matter which has been on my mind for some time. Last year at the close of the competition for the State Capitol of Nebraska, without asking for my consent you photographed and published some very wretched reproductions of my drawings. It is not with the quality of the reproductions that I am dealing at this moment. It is with a gross breach of the primary professional courtesies, to say nothing of the legal aspect of the situation.

I wish to warn you that if you publish anything of mine again without my personal permission (and I refer in particular just now to the competition for the Liberty Memorial in Kansas City) I shall take steps to determine once for all whether architectural periodicals, which batten upon our profession, may publish a man's work without his permission.

Very truly yours,
HVBM:FC (Signed) H. Van Buren Magonigle.

* * *

June 27, 1921.

My dear Mr. Magonigle:

It is amazing to me that a man who has reached the heights in his profession that you have, should display such crass ignorance of not only the ethics of his profession, but also social ethics as in your letter of June 24th.

The series of photographs used by us in illustrating the Nebraska State Competition, was purchased from the official photographer of the commission, who, we were assured, acted with complete authority. We were solicited by telegram to purchase the entire set. This we were glad to do. No other competitor raised objections. Is it not possible that the objection you so stoutly take is not warranted by any actual invasion of your rights and that under the terms of the program the Commission was authorized to give such publicity to the designs, when their property, as they might elect to do?

Your warning as to what you will do to architectural journals "who 'batten' upon our profession" in case they publish any of your work without authority is further proof that in your evident irritation over a matter that two gentlemen could very easily have amicably adjusted, you lose a sense of proportion and assume an attitude, which on taking advice of counsel, we believe you will find untenable.

Please be advised that covert threats will not deter us from further conducting our business as publishers of an architectural journal along lines which wide experience has shown us are not only strictly legal, but also absolutely ethical.

I am amazed, Mr. Magonigle, that you should have so long held a grudge, as it might easily have been adjusted to your complete satisfaction had you but told us of your state of mind. In fact, it's not too late some day to meet me and let us thresh this out. I shall as stoutly stand up for your rights, as I have always fought for every right of our profession, as I will endeavor manfully to maintain my own. Play the game with me, Mr. Magonigle, man-fashion. Neither you nor I have any differences that may not be easily and satisfactorily adjusted.

Might I say in conclusion that as your letter is addressed "to the Editor" it would be both legal and ethical to publish this.

Yours very truly,
(Signed) W. H. Crocker,
Editor.

* * *

July 5, 1921.

Mr. H. Van Buren Magonigle,
Dear Sir:

Supplementing our recent correspondence, I have now the pleasure to congratulate you on having won the memorial competition at Kansas City, and I am bluntly asking you if you will let me have your permission to illustrate this in an early issue of THE AMERICAN ARCHITECT.

I have no disposition in this instance, as I was entirely innocent of any disposition in the Nebraska competition, to do anythng that would provoke your displeasure or be contrary to your wishes.

I feel that there is so slight a difference between us in these matters that it might be easily adjusted if we could come together for that purpose. As you have not replied to my last letter, I infer that you have not yet decided that you are willing to do this.

THE AMERICAN ARCHITECT has always endeavored to be one of the most helpful and constructive papers in its field. While it has, perhaps at times made mistakes, they have none of them been so vital as to cause it to lose your respect and confidence, or to harbor any ill feeling toward its editor.

Will you not let me know if I may secure a set of photographs as I am in this instance, as in the one to which you take exception, offered a set of photographs if I can accompany my order with your written permission. Will you let me have this permission, Mr. Magonigle, and will you let me have an answer "Yes" or "No" as soon as possible, please, that I may either vigorously proceed to prepare this material or, with regret, forget the transaction?

Yours very truly,
(Signed) W. H. Crocker,
Editor.

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July 7, 1921.

Editor of THE AMERICAN ARCHITECT,
Sir:

I prefer, so far as I am concerned, to keep this correspondence impersonal.

Replying to your letter of June 27th, I ignore your polite references to my ignorance of professional ethics and social usage. No person whatever had any authority to give or sell you or anyone else any photographs of my Nebraska Capitol design. Several of the other architectural periodicals with the courtesy they always display, asked me to permit its publication and to all of them I replied that all of the competitors had agreed to withhold publication of their designs in the architectural press, pending their publication in a monograph by the Press of the American Institute of Architects.

The eagerness of THE AMERICAN ARCHITECT to score a beat had three immediate issues: 1. It caused the abandonment of the monograph; 2. It led you into a grave breach of not merely common politeness but professional courtesy; and 3. It caused me, for one, the trouble of writing to and calling up the publications I had declined to give the matter to and explain to them that the publication in THE AMERICAN ARCHITECT was unauthorized and not because of bad faith on my part.

In the second paragraph of your letter you fall into another fundamental error. The designs were not the property of the Commission. They were and are the property of the architects. You are apparently unaware that designs and drawings as instruments of service are the property of the architect. That is fundamental architecutral law.

Let me say that I never indulge in "covert threats." Upon occasion I present an unpleasant fact wrapped up, but I never covertly threaten. I am always ready to break a lance for the benefit of my profession and, to avoid any misunderstanding and any imputation of threatening covertly, I repeat—that if you publish any work of mine whatsoever again without my written permission, I shall sue you in the courts to establish the rights of my profession.

As to my use of the expression "batten upon our profession," since you quote it in your reply, it gives me the opportunity to say that I weighed and measured that word and decided that it exactly fits the case. The architectural press could not exist were it not that the most valuable part of what it publishes, the illustrations, is given to them free of charge by the profession, and most of the publications use this material as a lever to secure the advertising which constitutes the major part of their income. Therefore, I repeat, it battens or feeds upon our profession. And in cases like the one of which I complain you abuse the courtesies shown by the profession, by the kind of trick you played. I wrote my first letter on the afternoon of a day when a young man came in here for THE AMERICAN ARCHITECT and began to talk to me about co-operation between the profession and your paper. I told him to go straight back to his office, and tell it that until the editorial office showed some sense of common politeness as a basis for co-operation there was no use of his talking co-operation to me.

Now, as to my holding a "grudge" so long. Permit me to say that I held no grudge. I simply remembered, against the next time—and I should have written you in warning that day whether your young man had come in or not, because I intended the warning should be fresh in your mind and that you would have no excuse to forget.

In answer to your request under date of July 5th for my permission to publish my Kansas City Memorial design, you will hardly be surprised when I decline to accord you the permission. It may be of interest to you to know that there is only one authorized set of negatives in existence and that I have copyrighted every individual drawing.

And finally, I quote the concluding paragraph of your favor of June 27th: "Might I say in conclusion that as your letter is addressed 'to the Editor' it would be both legal and ethical to publish it. I infer you do not desire this." On the contrary, I do desire it, with the proviso that you publish the entire correspondence in full. In fact, I challenge you to do so.

Yours very truly,
(Signed) H. Van Buren Magonigle.

* * *

July 16, 1921.

Mr. H. Van Buren Magonigle,
My dear Sir:

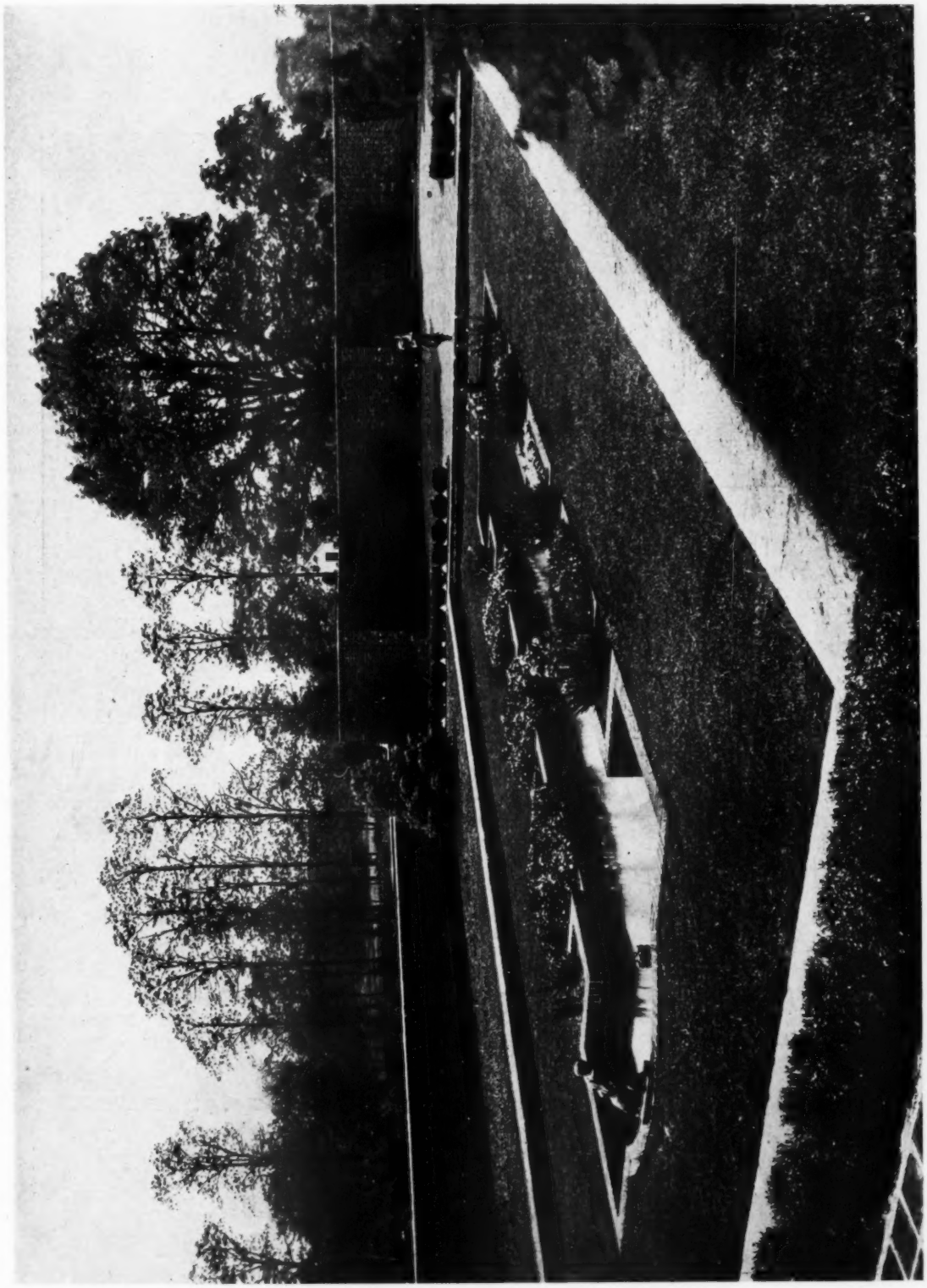
In your letter to me of July 7th, replying to mine of July 5th in which I asked your permission to publish your prize winning designs in the Kansas City memorial, you state, in declining this permission, "that there is only one authorized set of negatives in existence, and that I have copyrighted every individual drawing."

May I be permitted to inquire whether or not you erred in this statement, as I note in a recent copy of the Kansas City "Star" a full page perspective of your design and an extended description of it. These designs do not carry any copyright line and I am, therefore, unable to determine whether this has been through accident, omitted by the Kansas City "Star," or, if possibly there is another set of negatives of which you have no knowledge.

May I ask you to tell me the facts in the case and greatly oblige

(Signed) W. H. Crocker,
Editor.

No answer has been received to this letter.



VIEW OF GARDEN
ESTATE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*
(FOR OTHER ILLUSTRATIONS SEE PLATE SECTION)

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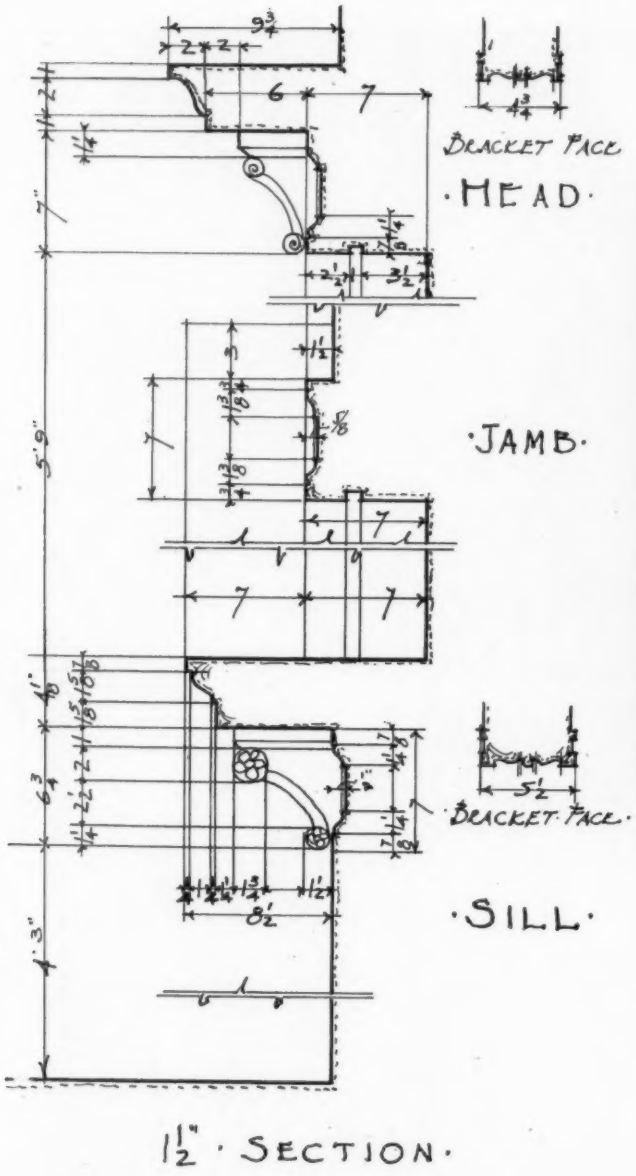
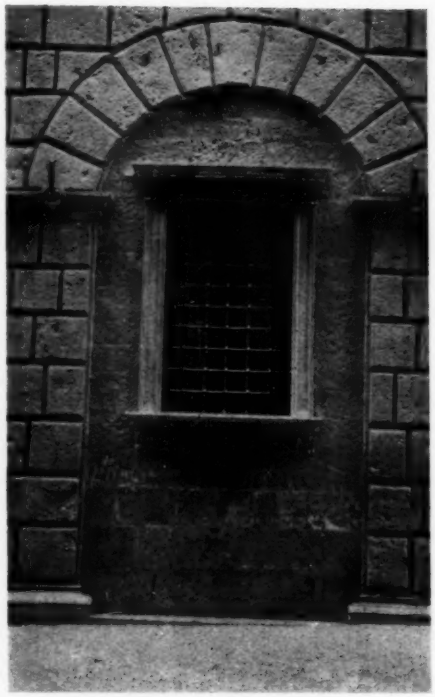
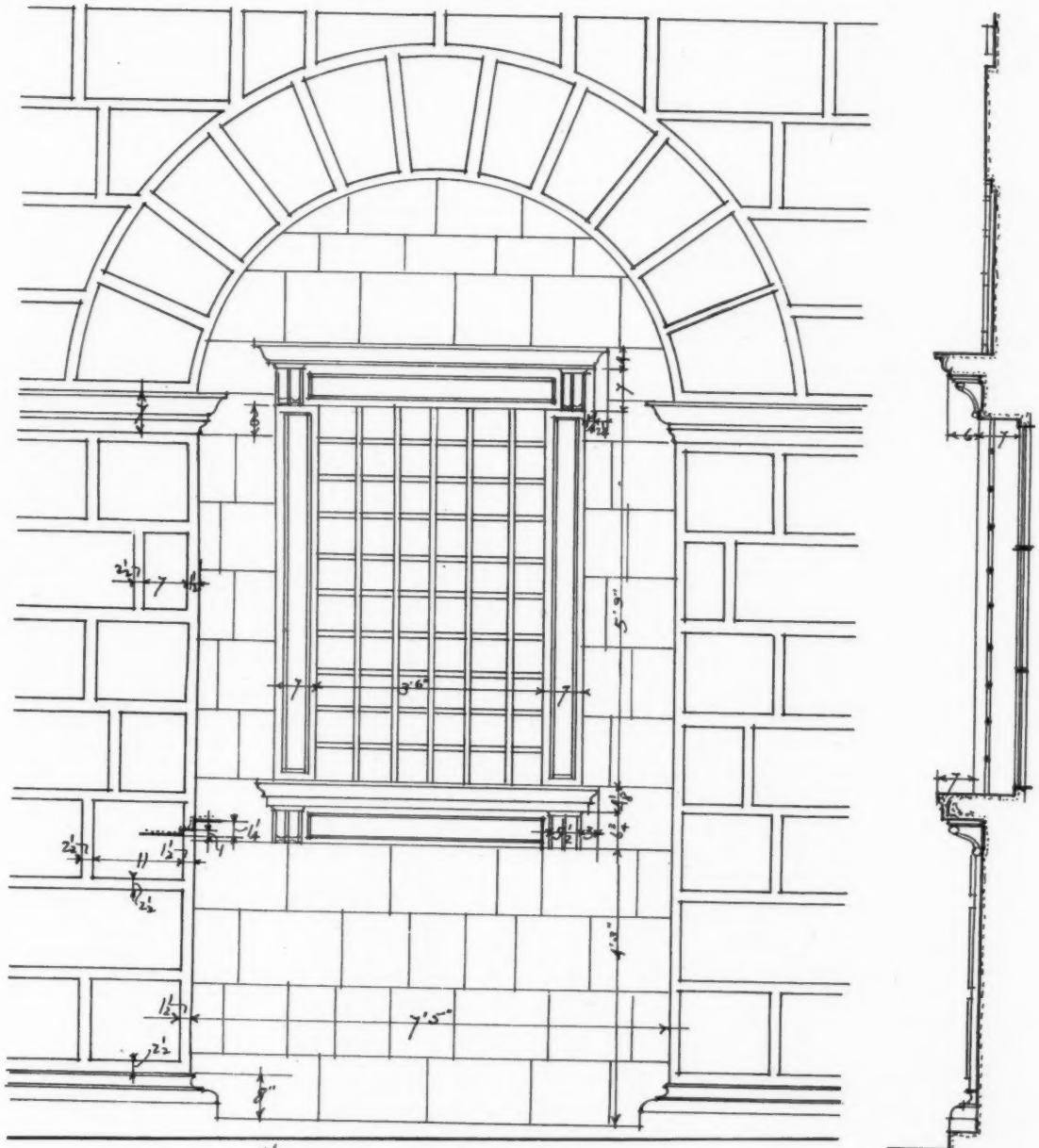




THE PICCOLOMINI PALACE, NOW CALLED THE PALAZZO DEL GOVERNO, WAS BUILT IN 1469 IN THE STYLE OF THE RICCARDI PALACE IN FLORENCE. THE ACCOMPANYING WINDOW WAS PLACED IN THE DOOR OPENING LATER, ALTHOUGH ITS DETAIL WAS KEPT IN HARMONY WITH THE DETAIL OF THE PALACE, AND THE STONE USED IS THE SAME AS IS USED ELSEWHERE IN THE BUILDING.

WINDOW IN THE PALAZZO PICCOLOMINI, SIENA

MEASURED AND DRAWN BY ROBERT. M. BLACKALL, 35th HOLDER OF ROTCH TRAVELING SCHOLARSHIP



WINDOW IN THE PALAZZO PICCOLOMINI, SIENA

MEASURED AND DRAWN BY ROBERT. M. BLACKALL, 35th HOLDER OF ROTCH TRAVELING SCHOLARSHIP

Old Stock Exchange, Philadelphia, Pa.

(See reproduction of original drawing by O. R. Eggers on opposite page)

THIS fine old building, designed by William Strickland, has seen many vicissitudes. It was built in 1831 *and represents in a most dignified way that period of our architectural development known as the "Greek revival."*

In THE AMERICAN ARCHITECT, *issue of September* 1, 1920, *a drawing by Mr. Eggers of a house at 7 State Street, New York, was presented. In the accompanying monograph it was stated that the architect of that building was unknown. Comparison with the present illustration would suggest that it might be safe to hazard an attribution to Strickland. Strickland was born in* 1787 *and died in* 1854. *The house on State Street in New York was built in* 1830, *a year earlier than the present subject, or when Strickland was about* 43 *years old.*

*The correct title of the subject presented on the following page is as stated in the heading above. The error in title was discovered too late for correction on the accompanying drawing.

OLD COURT HOUSE, PHILADELPHIA, PA.
THE AMERICAN ARCHITECT Series of Early American Architecture

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EDITORIAL

An Exchange of Courtesies

THERE is published in this issue certain correspondence which has passed between THE AMERICAN ARCHITECT and H. Van Buren Magonigle. The publication of this correspondence is made in no spirit of antagonism or controversy. Inasmuch as there seems to be an inference in the last paragraph of Mr. Magonigle's letter of July 7th, that we might be unwilling to publish the correspondence, and in justice to him, also, in view of his request that this be done, the publication is made.

In explaining the correspondence to our readers, there are a few facts which should be stated. The photographs of the plans, as the correspondence indicates, were purchased by us in entire good faith from the Nebraska photographer who had taken them. The photographer in question made the photographs, we are advised, with the definite permission of the Capitol Commission of the State of Nebraska, which had charge of the competition, and at that time was requested and authorized to distribute them as he saw fit. On July 15th, the Commission requested the photographer not to distribute any further photographs. The purchase of the photographs by THE AMERICAN ARCHITECT was made prior to this date, and the photographs were billed out of the office of Mr. MacDonald, the photographer, July 7th, 1920. The Commission recognizes the fact that Mr. MacDonald, prior to the new instructions of July 15th, was at liberty to deliver the pictures to any purchasers, as he saw fit.

The Sunday State Journal of Lincoln, Nebraska, in its issue of July 4th, and prior, of course to the publication in THE AMERICAN ARCHITECT, published the elevation designs of the nine contestants and the winning design of Mr. Goodhue and a report of the various points of merit in the respective designs which had been considered by the committee, the reasons for its final choice and the like. The profession will recognize the custom, in competitions of this character, whereby the competition plans are regularly published in the press of the locality where they are submitted. It is entirely natural that a commission charged with the preparation of plans for a public building should desire to have the plans submitted made public, and it is certainly in accordance with sound public policy that this be done. We fail to see how the publication of a noteworthy set of plans, with proper credit given to the architect who prepared them, can be in any way a detriment to him, or other than an advantage, in making known to the public the merit of his work. Certainly, THE AMERICAN ARCHITECT had no thought, in publishing the present plans, of infringing in the slightest any rights which Mr. Magonigle might have therein or taking any action which he would not approve.

We feel that the question at issue between us is one which should be susceptible of a perfectly friendly discussion, and we appreciate his consent to the publication of the correspondence. Whether the architectural press should be called upon, in the case of public competitions of this character, to secure the consent of the architect before the publication of plans submitted by him, is a question which, so far as we know, has never been raised before, and we should be glad to open our columns to any discussion by our readers or members of the profession on the point involved. We shall, of course, be glad to extend to Mr. Magonigle the courtesy of our columns in making any further statements of his point of view which he may care to make.

We naturally resent Mr. Magonigle's attack on the architectural press and the charges of unfairness by the architectural press which he makes. We hope that he will himself recognize the unfairness of the comments which he has made, not only to THE AMERICAN ARCHITECT, but to the architectural press as a whole.

The correspondence refers also to the Memorial Competition at Kansas City. We had no desire to publish Mr. Magonigle's plans submitted in this competition, without his consent, copyrighted or uncopyrighted and entirely irrespective of what our legal rights as a publisher of architectural news might be.

Building Code Requirements

THE up-to-date structural engineer experiences very often a feeling of irritation on reading design requirements in city building codes. Take for example floor loads which vary from 40 lbs. per sq. ft. to 100 lb. per sq. ft. for office buildings in the United States. Kidder many years ago conducted an investigation of actual loads and concluded that nearly all codes were unnecessarily severe. The majority of designers if not hampered by code requirements consider 50 lb. per sq. ft. ample. Floor loads for dwellings vary from 25 lb. per sq. ft. to 60 lb. per sq. ft., but no conditions observed in thousands of occupied rooms seem to warrant a floor load of more than 25 to 30 lb. per sq. ft. for upper floors or 35 to 40 lb. per sq. ft. for ground floors.

An examination of floor load requirements for all classes of buildings shows similar wide variations. from loads manifestly too light in about 2 per cent. of the cases to loads about right in, say 10 per cent.; too heavy in 20 per cent.; much too heavy in 40 per cent. and absurdly heavy in about 28 per cent.

In some cities 8 in. brick walls are permitted in certain classes of buildings, while in other cities only 12 in. walls are allowed. A building was erected in one city where the walls had to be 12 in. thick and the same plans were used in another city where walls could be thinner. The steel work was re-

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designed for the second building and the saving in steel amounted to 260 tons. Floor loads and wind requirements were the same in both places.

The requirements for wind stresses are as variable as any other item. The fiber stresses for all materials and various little items of a somewhat faddish nature all play a part. One is led to believe that special local interests, blind copying of older codes, ignorance and credulity, and at times lack of credulity, all play too large parts in the framing of building ordinances. A building code does not represent the best practice but represents compromises governing "good-enough" practice.

Standardization, co-ordination, and conservation are three principles guiding the work of the National Federation of Construction Industries. The Technical Committee of the Federation has at present under way a study of all the building codes in American cities. A tabulation is to be made of allowable stresses in all building materials as prescribed in the codes as well as in specifications used by accepted authorities when not limited by codes. The waste of materials in many places working under obsolete codes will be shown by comparison with modern specifications. It is hoped by this means ultimately to have but one set of fiber stresses throughout the country. Those who argue that it cannot be done have only to remember that not ten per cent. of incorporated towns and cities have building ordinances and standard specifications are used where no local building ordinances exist.

When stresses in building materials are standardized the committee will arrange to standardize wind pressure and wind stress requirements. Then an agreement will be arrived at on floor loadings, if possible. On thickness of brick walls the underwriters will have a great deal to say. A wall having thickness enough to carry loads and supply necessary stability is often too light to resist deformation from the expansion of air in case of fire. Sometimes a thin wall full of openings goes through a fire better than a thicker solid wall. The construction of walls will, to the end of time, be governed by empiricism in design, for strength is often greater than necessary, stability is determined from centuries of experience and pressure from sudden expansion of air within the building cannot be computed. The members of the Technical Committee of the National Federation of Construction Industries invite the co-operation of all men engaged in the construction industries; they have our best wishes and need the prayers of all good men.

GATEWAY
GARDEN OF AMOS D. CARVER, ESQ.,
LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*

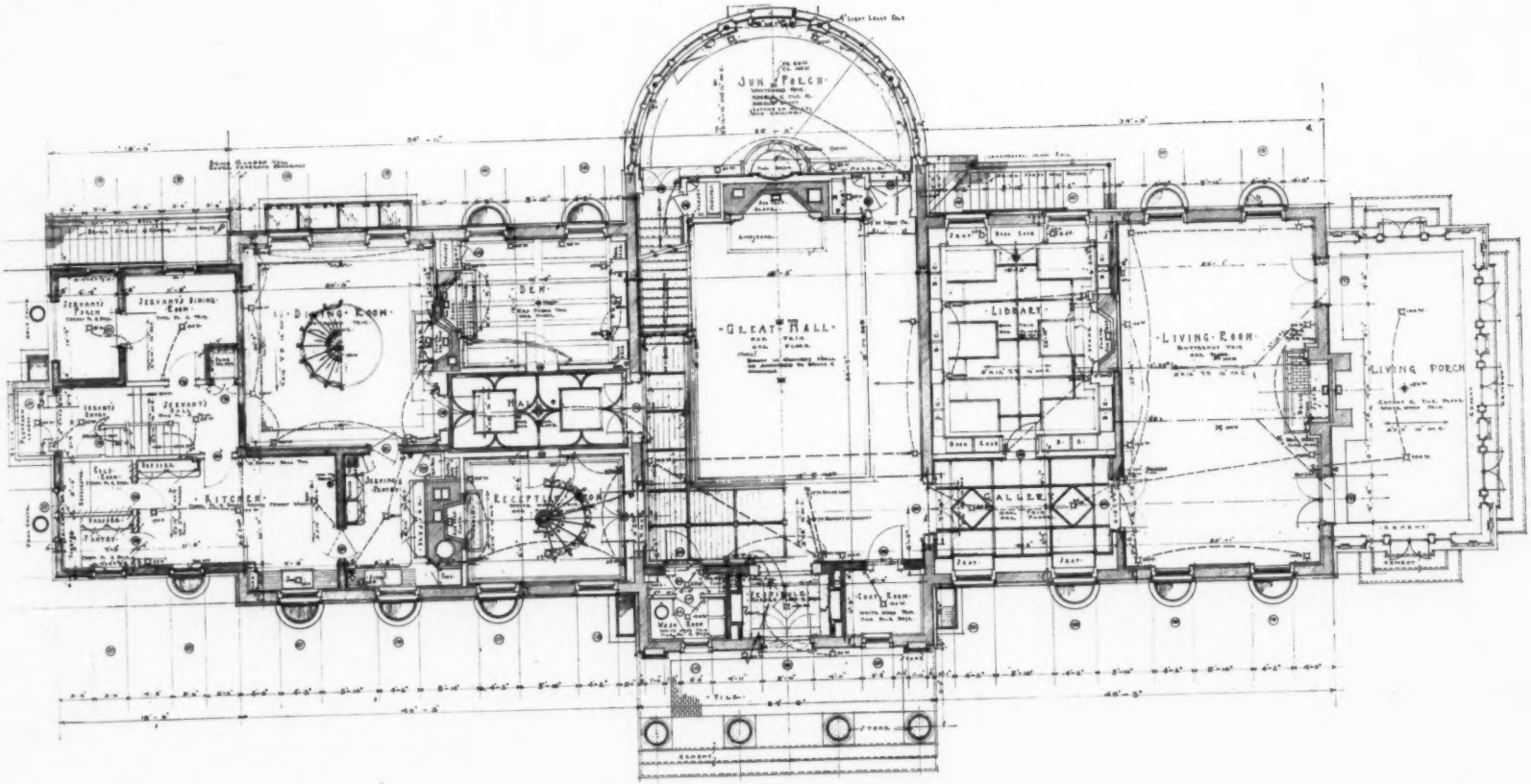
AUGUST 17, 1921

HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*

GARDEN FRONT

HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.

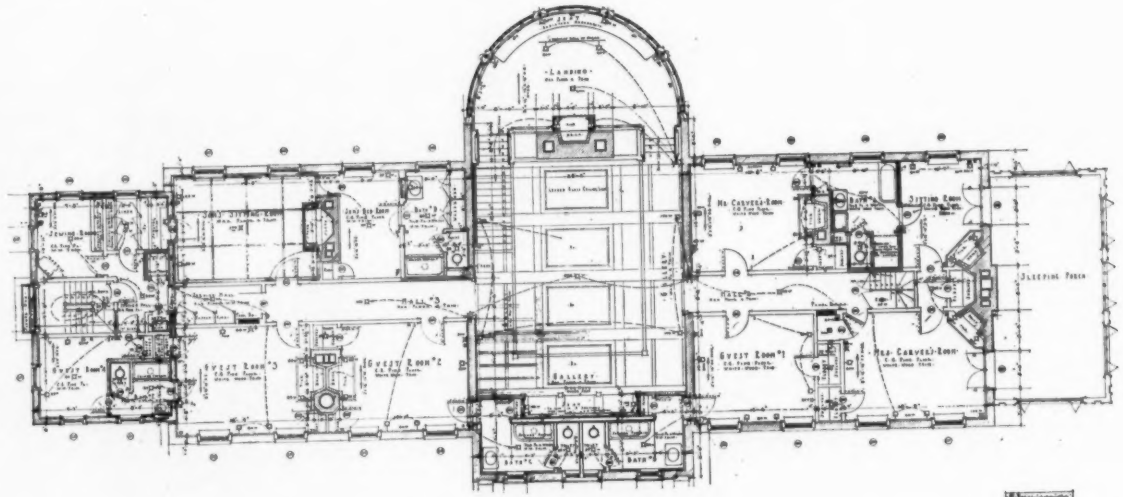
TOOKER & MARSH, *ARCHITECTS*



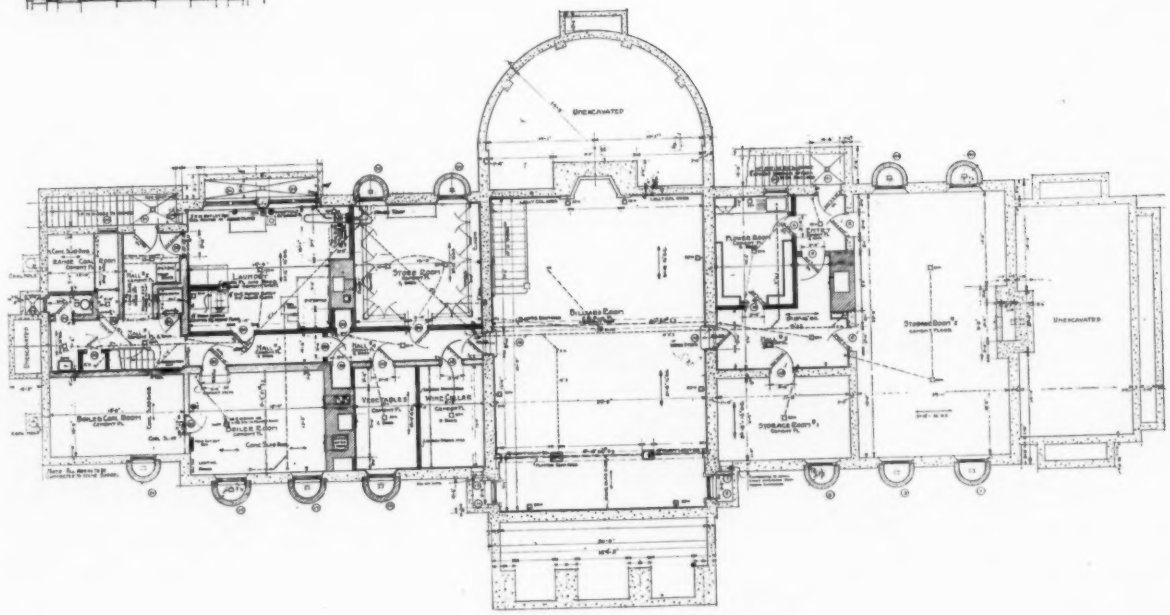
FIRST FLOOR PLAN

HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.

TOOKER & MARSH, *ARCHITECTS*

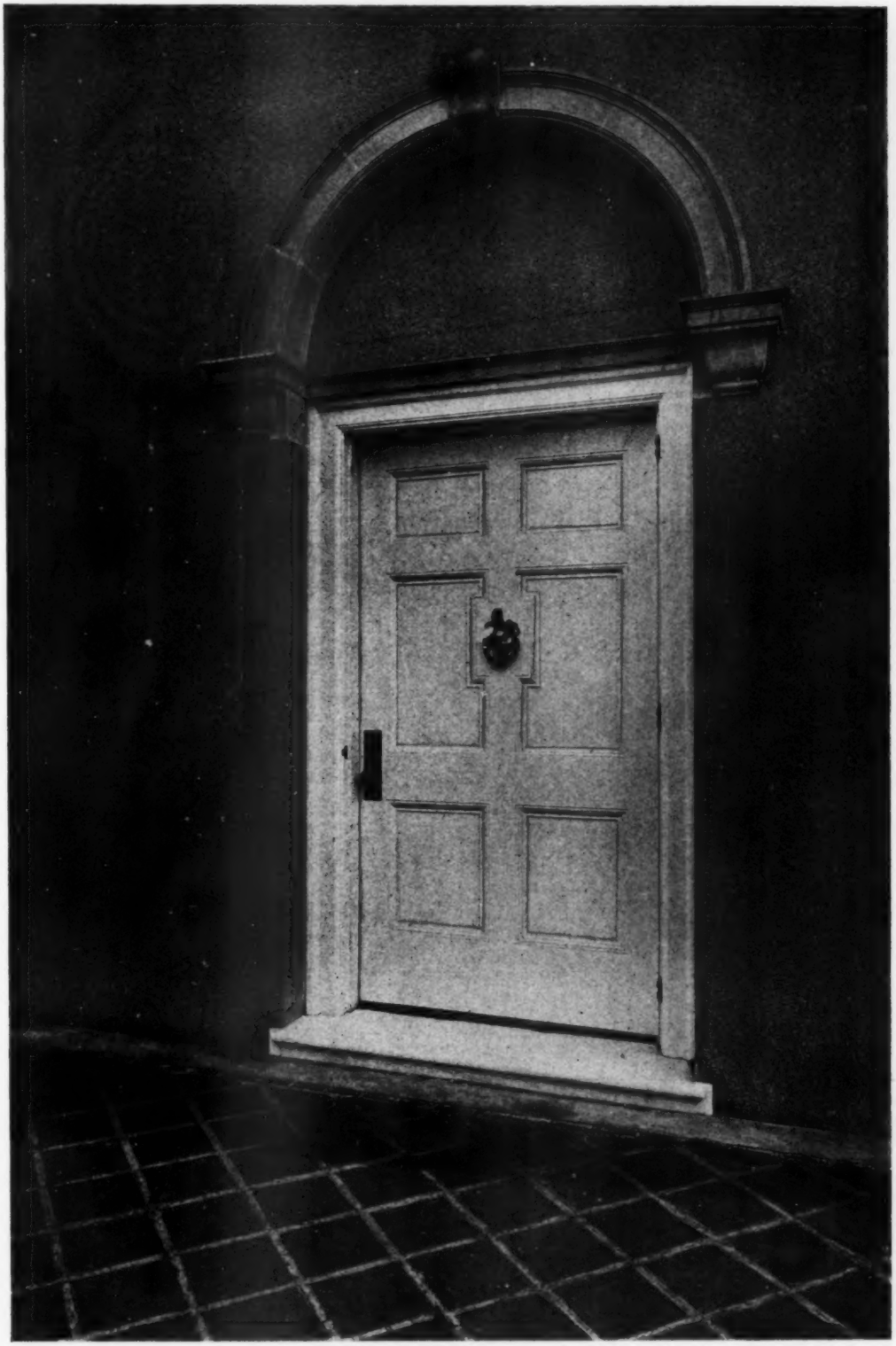


BASEMENT AND SECOND FLOOR PLANS



HOUSE OF
AMOS D. CARVER, ESQ.,
LOCUST VALLEY,
LONG ISLAND, N. Y.

TOOKER & MARSH, *ARCHITECTS*



MAIN ENTRANCE DOORWAY
HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*

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THE GREAT HALL

HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.

TOOKER & MARSH, *ARCHITECTS*

HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*

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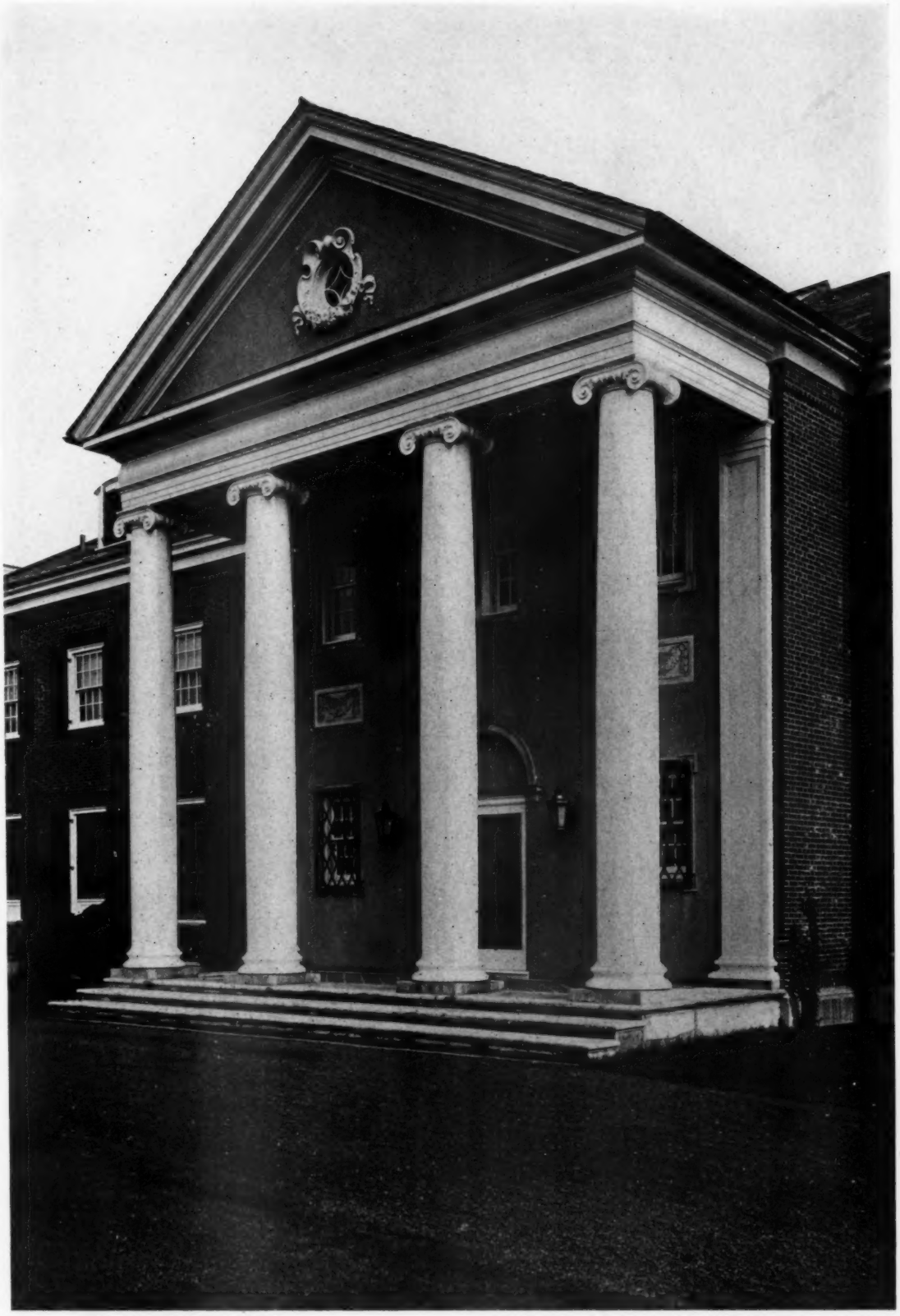
XUM

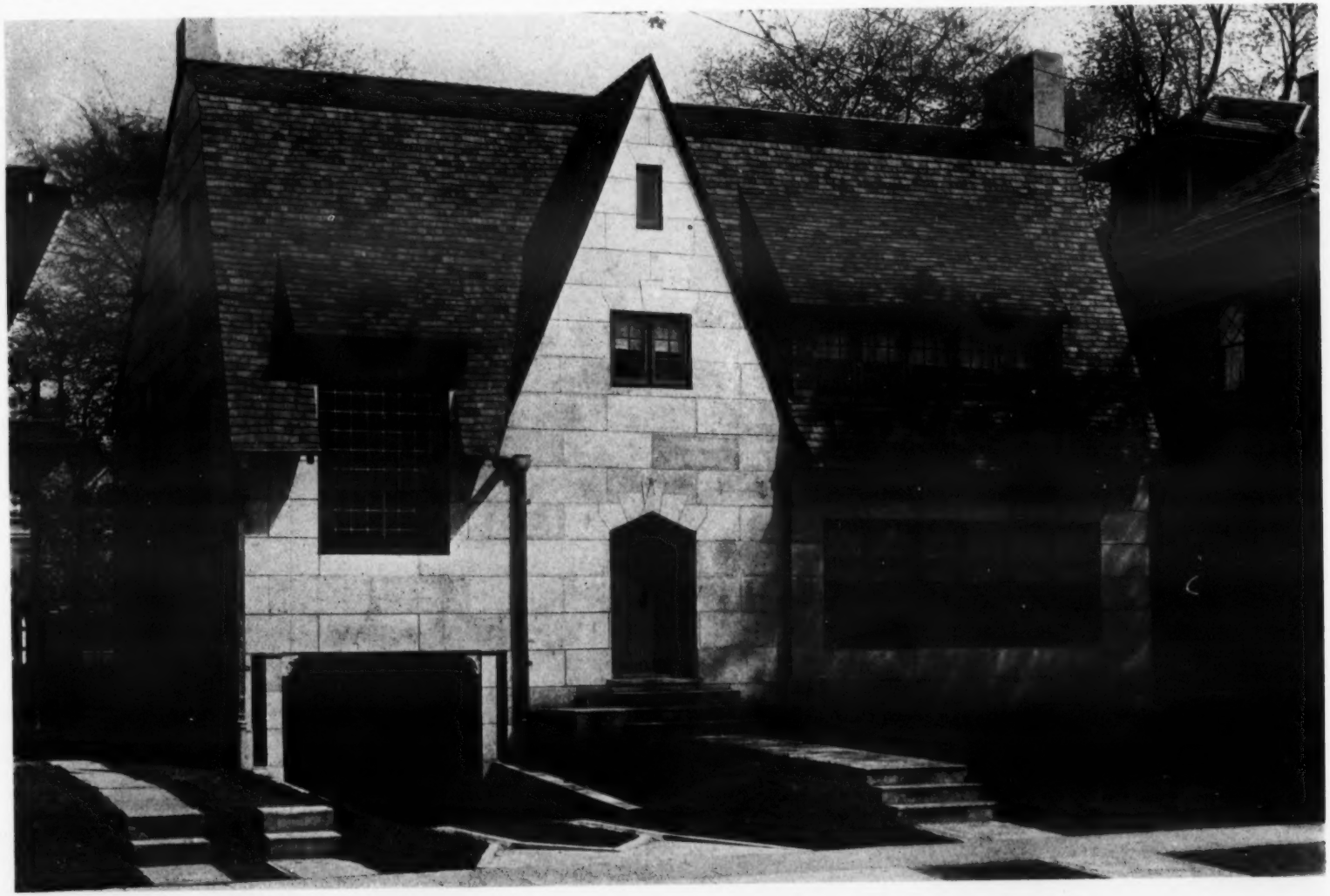
TWO MANTELS IN HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*

TWO MANTELS IN HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.

TOOKER & MARSH, *ARCHITECTS*



HOUSE OF AMOS D. CARVER, ESQ., LOCUST VALLEY, L. I., N. Y.
TOOKER & MARSH, *ARCHITECTS*



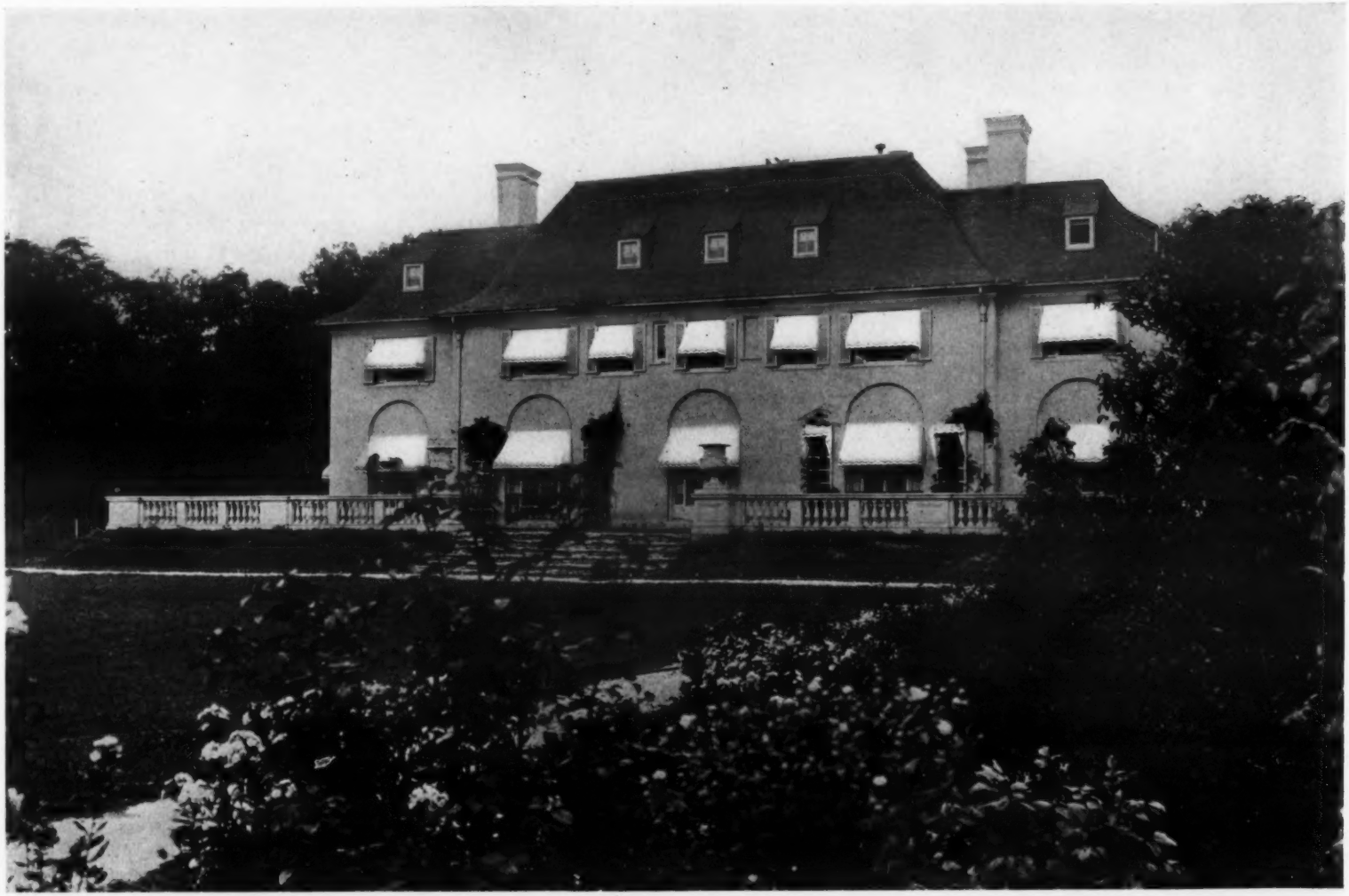
HOUSE AT ELIZABETH, N. J., DESIGNED AND OWNED BY H. G. MORSE, *ARCHITECT*

WINDOW DETAIL

HOUSE AT ELIZABETH, N. J., DESIGNED AND OWNED BY H. G. MORSE, *ARCHITECT*

INTERIOR VIEWS IN HOUSE AT ELIZABETH, N. J.

DESIGNED AND OWNED BY H. G. MORSE, *ARCHITECT*



TERRACE FRONT

HOUSE OF G. S. GAYLORD, NEENAH, WIS.

CHILDS & SMITH, *ARCHITECTS*

ENTRANCE FRONT

HOUSE OF G. S. GAYLORD, NEENAH, WIS.

CHILDS & SMITH, *ARCHITECTS*

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XUM

HOUSE OF G. S. GAYLORD, NEENAH, WIS.
CHILDS & SMITH, *ARCHITECTS*

XUM

BEAUX-ARTS INSTITUTE of DESIGN

DIRECTOR OF THE INSTITUTE, LLOYD WARREN

ARCHITECTURE, RAYMOND M. HOOD — SCULPTURE, JOHN GREGORY

INTERIOR DECORATION, ERNEST F. TYLER — MURAL PAINTING, ERNEST C. PEIXOTTO

Official Notification of Awards—Judgment of April 12th, 1921

PROGRAM

THE MUNICIPAL ART SOCIETY PRIZE

Through the generosity of the Municipal Art Society of New York City this Prize will be awarded annually on the fourth Class "A" Projet of the season.

FIRST PRIZE—$50.00 SECOND PRIZE—$25.00.

CLASS "A"—IV PROJET

The Committee on Architecture proposes as subject of this Competition:

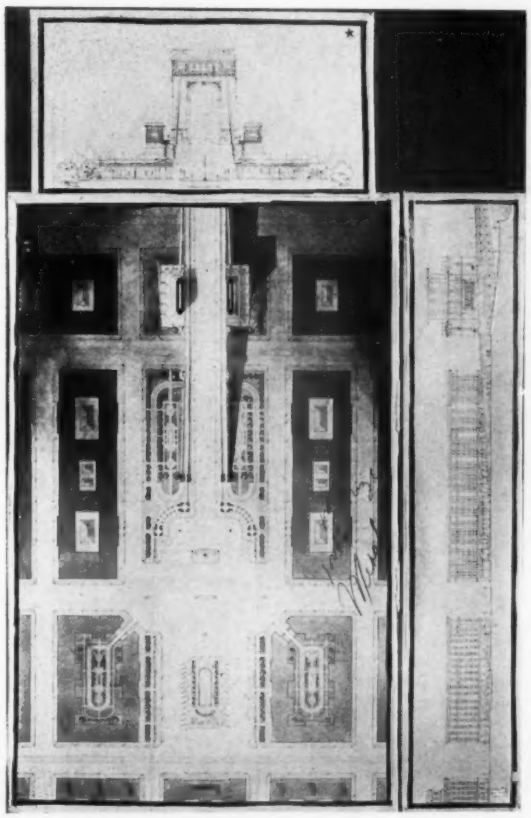
"A BRIDGE PLAZA"

Two adjoining, rectangular blocks have been set aside for the development of a suitable approach to a huge suspension bridge in one of our large cities. For convenience, designating the two blocks as Block I and Block II, and referring to the three parallel avenues defining them on the east and west as Avenues A, B and C, respectively, the two blocks may be described as follows:

The two blocks are level and symmetrically disposed about a main axis running east and west, the long side of each block being parallel to the main axis. Block I, between Avenues A and B, is 500′-0″ long and 300′-0″ wide. Block II, between Avenues B and C, is 300′-0″ long and 200′-0″ wide. Thus the crosstown streets at the north and south sides of the plaza are not straight continuous streets, but have an offset at Avenue B. Including the sidewalks, the avenues are 90′-0″ wide and the crosstown street 60′-0″wide. The total length of the plaza measured within building lines is therefore 1070′-0″. Its total width within building lines is 420′-0″ across Block I and 320′-0″ across Block II.

The bridge itself is 100′-0″ wide and provides for the circulation on a single level of street cars, vehicular and pedestrian traffic. The bridge, which is on the axis of the two blocks, starts at a point in Block I, 200′-0″ distant from Avenue B, and crosses Avenue A at a height sufficient to give a clearance of 14′ for the traffic on Avenue A. The street car lines on the bridge terminate in the plaza in a loop, so arranged that a transfer point can be established with the crosstown car lines, which also loop in the plaza.

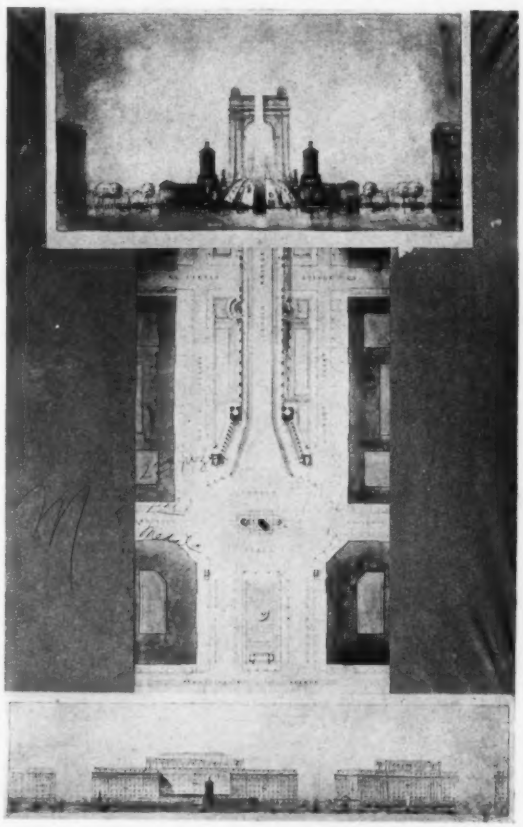
The owners of the properties bordering on the plaza



H. T. ASPINWALL — CARNEGIE INSTITUTE

FIRST PRIZE AND FIRST MEDAL
MUNICIPAL ART SOCIETY PRIZE

CLASS A—IV PROJET. A BRIDGE PLAZA



R. F. LARSON — UNIVERSITY OF PENNSYLVANIA

SECOND PRIZE AND FIRST MEDAL
MUNICIPAL ART SOCIETY PRIZE

CLASS A—IV PROJET. A BRIDGE PLAZA

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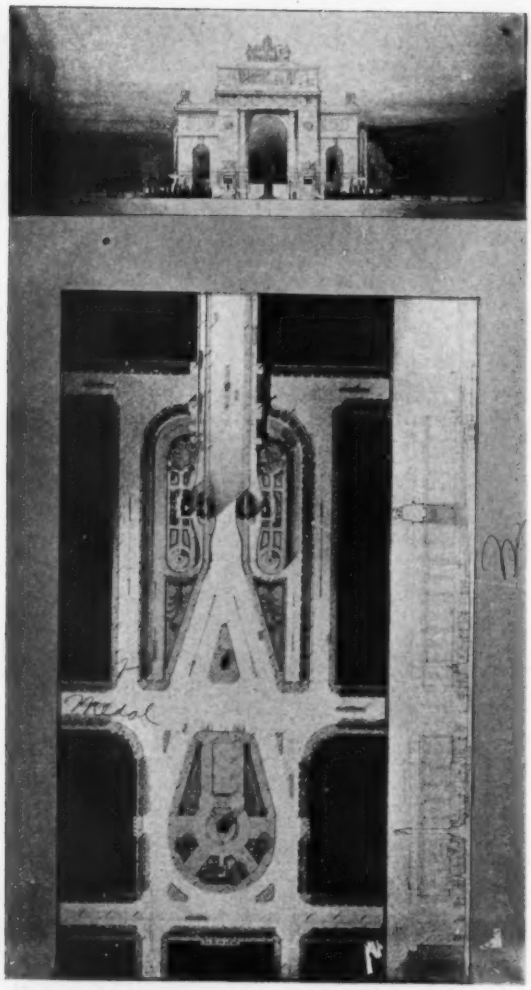


L. HAMILTON YALE UNIVERSITY

FIRST MEDAL

MUNICIPAL ART SOCIETY PRIZE

CLASS A—IV PROJET. A BRIDGE PLAZA

have united to build new façades to their buildings, so that they shall have a uniform character suitable to such a place. All the buildings are of a business or residential type, and according to a municipal building regulation cannot exceed 90′-0″ in height on the plaza. They may, however, go beyond this height by terracing back, provided they are kept within a plane sloping backwards at 60 degrees from 90′-0″ level.

The problem therefore is the treatment of the bridge plaza thus formed, including the façades of the surrounding buildings.

Jury of Award—R. M. Hood, C. F. Hirons, H. Hornbostel, D. Barber, E. V. Meeks, Mr. Sterns, G. H. Bickley, C. W. Killam, L. P. Burnham, J. H. Hunt, C. W. Stoughton and G. B. deGersdorff.

Jury for Awarding of Prize—R. M. Hood, D. Barber, J. H. Hunt, C. W. Stoughton and G. B. deGersdorff.

Number of Drawings Submitted—119.

AWARDS—

FIRST PRIZE ($50)—H. P. Aspinwall, Carnegie Inst. of Tech., Pitts.

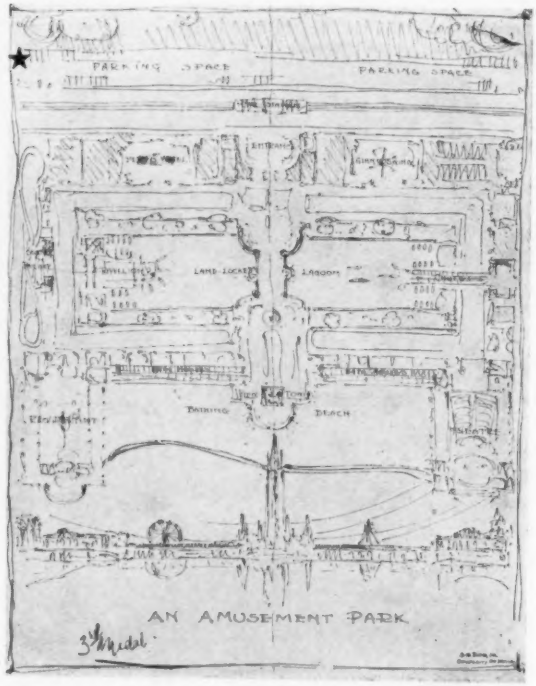
SECOND PRIZE ($25)—R. F. Larson, Univ. of Pennsylvania, Phila.

FIRST MEDAL—H. T. Aspinwall, Carnegie Inst. of Tech., Pitts.; F. L. Abreu, Cornell Univ., Ithaca; R. DeGhetto, Atelier Hirons, N. Y. C.; R. F. Larson, Univ. of Pennsylvania, Phila.; L. Hamilton, Yale Univ., New Haven.

SECOND MEDAL—P. F. Simpson, Carnegie Inst. of Tech., Pitts.; L. P. Botting and S. E. Lunden, Mass. Inst. of Tech., Boston.

MENTION—C. W. Hunt, R. W. Schmertz, K. A. Snow, A. P. Herrman, L. H. Rank, S. Jamison, M. W. Pohlmeyer, F. K. Draz, N. D. Kutchukian, R. M. Crosby and E. A. Earley, Carnegie Inst. of Tech., Pitts.; E. K. Hunter, E. B. Mason, T. L. Eschweiler, W. H. Harrison, R. G. Allen, J. D. Rivers, G. Fraser, H. Nolan, L. R. Chapman, R. D. McPherson, K. Carver, H. G. Spielman, V. S. Swan and A. A. Weber, Cornell Univ., Ithaca; M. B. Loewy and A. L. Muller, Columbia Univ., N. Y. C.; N. J. Schlossman, Chicago Sch. of Archt., Chicago; M. Jaeger, Jr., Atelier Hirons, N. Y. C.; L. C. Holden, Jr., J. Carlson, F. J. Wilder, L. A. Kruse, F. A. Kleinschmidt, I. Rosenfield, W. Williams, R. Ruhnka, F. S. Owen, K. G. Cowles and N. Brazer, Harvard Univ., Cambridge; W. T. Vahiberg, A. Kruse, E. R. Harman, R. F. Flather, R. E. Godard, W. E. Caisse, H. D. Seaver, M. F. Farren, M. A. Spencer, F. W. Peers, A. G. Stanton, J. J. Stanton, H. T. Dennison, C. F. McGill, S. W. Ross, I. G. Smith, W. E. Church and A. L. Williams, Mass. Inst. of Tech., Boston; L. Z. Slawter, R. A. Fisher and E. Z. K. Schmidt, "T" Square Club, Phila.; E. R. Armstrong, E. J. Matthewson, R. S. Potter, C. E. Jenkins, A. B. Baumann, Jr., D. A. Royer, K. A. McGrew, C. W. Pollitt, O. M. Olsen, H. J. Toombs, G. P. Turner, G. A. Barry, G. K. Geerlings, S. J. Laschenski, L. H. Price, R. Gleason, T. H. Hewlett and I. Clavan, Univ. of Pennsylvania, Phila.; W. M. Icenhower, Univ. of Kansas, Lawrence.

H. C.—Mary L. Abbott and C. Contreras, Columbia Univ., N. Y. C.; Miss Nelson and Miss Kimball, Mass.



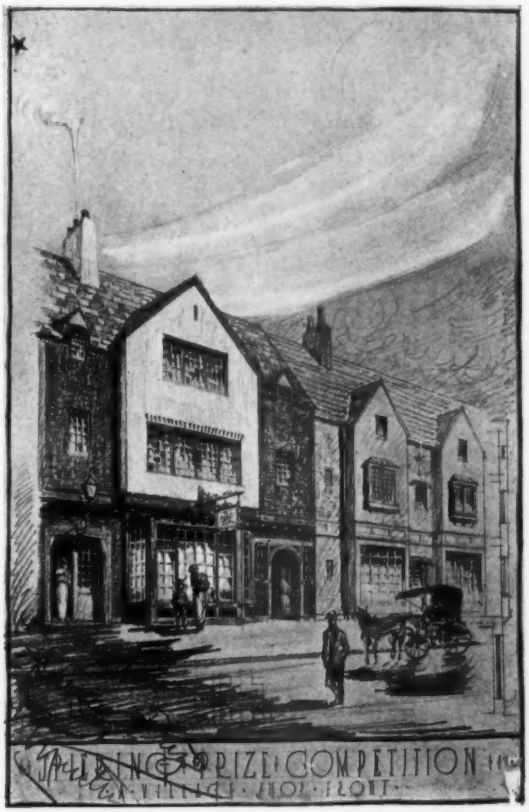
S. W. BIRH, JR. UNIVERSITY OF KANSAS

THIRD MEDAL

CLASS A—IV. ESQUISSE-ESQUISSE

AN AMUSEMENT PARK

Inst. of Tech., Boston; G. K. Trautwein, Univ. of Pennsylvania, Phila.; R. B. Thomas, Yale Univ., New Haven.



G. A. HACKER — ATELIER SIBLEY
PRIZE AND FIRST MENTION
SPIERING PRIZE
CLASS B—IV. ESQUISSE-ESQUISSE
A VILLAGE SHOP FRONT

PROGRAM
CLASS "A"—IV ESQUISSE-ESQUISSE

The Committee on Architecture proposes as subject of this Competition:

"AN AMUSEMENT PARK"

The planning and architectural treatment of a high class amusement park has all the artistic possibilities of a world's fair in miniature with its grouping of buildings and its effects of night lighting.

This particular amusement park is situated on a level tract of land facing the sea. It occurs between the beach and a boulevard which runs parallel to the beach. The frontage of the park on the boulevard is 1000′-0″ and its depth, between the boulevard and high water, is 600′-0″.

Located on the boulevard will be an imposing entrance to the park, in conjunction with which there shall be rest rooms, waiting rooms, etc. The trolley cars which run along the boulevard will have a station near this entrance. The parking of automobiles will be provided for on land along the boulevard on the opposite side from the amusement park.

Within the park the following are the chief features to be arranged:

1—A Promenade along the Sea.
2—Bath Houses.
3—A Land-Locked Lagoon, at one end of which shall be a Chute-the-Chutes and at the other end a pavilion arranged to accommodate people indulging in all sorts of Water-Sports, Canoe-Jousts, etc.
4—A View Tower.
5—A Restaurant and Dance Hall.
6—A Summer Theatre.
7—A Scenic Railway.
8—Other features, such as Ferris Wheels, Captive Balloons and other various "Side Shows," may be included as the student desires.

In considering this problem it will be seen at once that the circulation should be ample, direct and continuous, as nearly everyone who visits the park wishes to enjoy the major part of the attractions.

Jury of Award—F. A. Godley, L. Warren, H. O. Milliken, B. W. Morris, H. R. Sedgwick, P. Sawyer, E. H. Klaber, W. B. Chambers, H. W. Corbett, D. J. Baum, J. Wynkoop and T. S. Holden.

NOTE:—This Jury also served as Jury of Award for the Class "B"—IV Esquisse-Esquisse, Class "A" & "B" Archaeology—IV Projet and Class "A" & "B" Archaeology—IV Measured Drawings.

Jury for Awarding Spiering Prize—F. A. Godley, L. Warren, H. O. Milliken, B. W. Morris, P. Sawyer, E. H. Klaber, W. B. Chambers and H. R. Sedgwick.

Number of Drawings Submitted—38.

AWARDS—

THIRD MEDAL—A. L. Muller, Columbia Univ., N. Y. C.; T. E. Ash, "T" Square Club, Phila.; S. W. Birh, Jr., Univ. of Kansas, Lawrence.

MENTION—P. F. Simpson, Carnegie Inst. of Tech., Pitts.; G. Fraser, Cornell Univ., Ithaca; R. K. Galbraith, Archtl. League of Indianapolis, Indianapolis; W. L. Hin-

D. A. ROYER — UNIVERSITY OF PENNSYLVANIA
THIRD MEDAL
CLASS A & B—ARCHAEOLOGY—IV PROJET
A NORMANDY SHOP FRONT

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denach, "T" Square Club, Phila.; R. F. Larsen and C. E. Jenkins, Univ. of Pennsylvania, Phila.

PROGRAM

SPIERING PRIZE COMPETITION

A Prize founded in memory of Louis C. Spiering, from funds bequeathed by him to the Society of Beaux-Arts Architects and given for the best solution of the fourth Class "B" Esquisse-Esquisse of the season.

PRIZE, $50.00

CLASS "B"—IV ESQUISSE-ESQUISSE

The Committee on Architecture proposes as subject of this Competition:

"A VILLAGE SHOP-FRONT

A small merchant, dealing in dry goods and notions, has acquired, on the main business street of a country town, a piece of property 35′-0″ wide, upon which he proposes to build a shop for the sale of his goods, and, above, living quarters for himself and his family. He desires to make the street front of this building as attractive as possible both to induce patronage and to enhance the charm of the town in which he takes considerable pride. His property abuts two other buildings of about the same height as the one he proposes to erect.

The shop, which will occupy the entire ground floor with the exception of the entrance and stairs leading to the living quarters, will include a show window and an entrance direct from the street. Its height is to be 12′-0″ in the clear. The living quarters above are to be in two stories. Otherwise entire freedom in the design and choice of materials is left to the architect.

Number of Drawings Submitted—53.

AWARDS—

PRIZE ($50)—G. A. Hacker, Atelier Sibley, Palisade, N. J.

FIRST MENTION—W. Conley, Columbia Univ., N. Y, C.; L. Rombotis, H. F. Hunter and L. F. Fuller, Los Angeles Archtl. Club, Los Angeles; G. A. Hacker, Atelier Sibley, Palisade; W. Douglas, Yale Univ., New Haven.

MENTION—I. Tron, Columbia Univ., N. Y. C.; E. H. Carleton, Cincinnati Archtl. Society, Cincinnati; G. B. Howell, Cornell Univ., Ithaca; W. J. Perkins, Carnegie Inst. of Tech., Pitts.; W. K. Macomber, Post and Lintel Club, Minneapolis; D. M. Campbell and C. B. Lewis, Yale Univ., New Haven.

PROGRAM

CLASS "A" AND "B" ARCHAEOLOGY—IV PROJET

The Committee on Architecture proposes as subject of this Competition:

"A NORMANDY SHOP FRONT"

The heart of every village and town in Normandy is the market square with its fountain or monument in the center. The most important situations on the square are occupied by the church and the town hall, with the houses of the principal citizens and the shops of the merchants grouped about them, forming a picturesque sky line of gable roofs and attic stories. The fronts, huddled together in this desirable location like a jostling crowd at a parade, present a charming variety of richly carved timber work, sombre flint, fanciful ornament cut in Caen stone or pattern brick.

In one of the largest towns famous for its tapestries and textiles, a merchant, late in the fourteenth century, built a house fronting the market square. This house was to be both a shop for the display of his textiles and a home for his family.

The subject of this competition is the design of the front elevation of this house. The frontage is 30′-4″. On the first floor is the shop and above it three stories of living quarters, the upper one in a gable or attic.

Number of Drawings Submitted—24.

AWARDS—

THIRD MEDAL—G. D. Conner and T. M. Hofmeester, Jr., Chicago Sch. of Archt., Chicago; A. Westover, Jr., J. H. Geissel and E. A. Beihl, "T" Square Club, Phila.; D. A. Royer and C. E. Jenkins, Univ. of Pennsylvania, Phila.

MENTION—I. Tron, Columbia Univ., N. Y. C.; R. J. Nedved, W. S. Sponholz, F. M. Baldwin, I. J. Loeb, M. F. Winiarski and H. L. Fassett, Chicago Sch. of Archt., Chicago; W. K. Macomber, Post and Lintel Club, Minneapolis; W. L. Hindensch, "T" Square Club, Phila.; C. H. Siebert, Syracuse Univ., Syracuse; R. Alsup, R. L. White and Essie Lipscomb, Univ. of Texas, Austin.

PROPOSED FRATERNITY HOUSE AT ITHACA, N. Y.

WILLIAM DUNBAR, *ARCHITECT*

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DEPARTMENT of SPECIFICATIONS

The Construction of a Specification—Part II

WHEN the specification writer has gathered together the various items for the outline and is satisfied that he has checked over the drawings with sufficient thoroughness to have grasped the details of the work shown on the drawings, he is well prepared to start what one might aptly call "the fabrication" of the document.

The outline should be checked over to make sure that the customary preliminary paragraphs, such as

Scope of Work
Work Not Included
Quality of Workmanship
Quality of Materials
Inspection of Materials
Storage of Materials

are placed in logical sequence, followed by the succeeding steps of the work included in the particular section. It is well here to call attention to several important points which, if recognized and given their proper consideration, will help to organize each entire section and reduce materially the task of writing the specifications.

The first paragraph in each section should be given the caption, "General Conditions," should consist only of a reference to the general conditions of the contract and should carry a requirement that this document should be read by each one submitting a proposal for the work of that section.

The second paragraph should be captioned "Scope of Work," and should schedule, either in general terms or in detail, all work that is to be included in the section.

As heretofore mentioned, the paragraph captioned, "Work Not Included," is quite as important as the second paragraph and, because of its nature, should follow the latter. Certain sections of the specifications, such as "Roofing," ordinarily will not require this third paragraph, but it is well to put it in the outline for later elimination should it be deemed unnecessary when the final draft of the specifications is written.

Separate paragraphs should be devoted to "Quality of Workmanship," "Quality of Materials," "Inspection of Materials" and "Storage of Materials." If this is done and if they are prepared with care the specification writer will have presented to the bidders and contractors the major considerations that justify the writing of specifications. The bidder will have called to his attention the general conditions of the contract to which he must subscribe, the work that is to be included and excluded from his proposal and he will understand the quality of workmanship and materials that will be demanded by the architect. If the "Scope of Work" is scheduled in fairly complete detail the schedule will, in itself, be an outline of the work that is to be done, and when the construction operations have started, or at any time, whether in field or office, questions respecting the work included can be answered without thumbing through page after page, as is so often the case.

The logic of grouping, under one caption, all materials and the requirements as to qualities can not be questioned. The only other course open to the specification writer is to specify the kind and quality of materials in the paragraphs of the specifications that have to do with their fabrication or installation, and, in this way, repeating clauses that just as well may—and should—be used once under "Quality of Materials." This alternate method is wholly undesirable and should not be practiced.

The specification writer then should proceed through his outline, rearranging the several items as seems best to him, the only consideration on which to base judgment as to position being the sequence of construction operations. Where one or two items do not fit into the scheme of sequence but should be placed in a certain position because of their intimate relation to other items, it will not be an error to give them what appears to be their proper place. It is not to be expected that perfection in logical arrangement can be accomplished, especially where numerous separate operations are to be performed, and the specification writer must be expected to do what appears to be best in each case.

When the proper arrangement of the outline has been accomplished the sections should be put in proper sequence, as near as may be done, and each section given a number. This numbering arrangement will be treated in greater detail later when the composition of the specification is discussed.

THE next step for the specification writer will be to start the preparation or "fabrication" of the first section of the specifications. It is considered best to start with the first specification for the reason that the writer will find its composition will proceed with greater smoothness if he starts his narrative at the same place the constructor will start the construction of the building. At times it may be more convenient, or when the available time demands, it may be quite proper, to write some later specification, such as that for "Structural Steel," or for "Architectural Terra Cotta," first, in order to get the work requiring a long period for shop fabrication

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or manufacture under way so it may be delivered promptly when needed. If, however, the specification writer has given the work its proper attention he will have prepared the outlines for all sections prior to the time he writes these hurried specifications and will have the work so well in hand that he can write them with complete assurance of their accuracy. Should he write these first sections hastily, without an adequate preparation of outlines for the sections affected, even remotely, by them he will, very probably, regret later that he made the all too common error of writing incorrect specifications and must then have recourse to an addendum and thus confess his mistakes to everyone who reads the documents.

When writing the final draft of the specifications the master specification, specification data file, catalog file and file of old specifications will, in most cases, be consulted for specific data. The specification writer, if he has organized his work with these "tools" and has kept them up-to-date, will find them of the greatest convenience, and he will be more sure of accuracy in the special requirements if these files are referred to for all information.

The use of standard paragraphs in the master specifications must, however, be mixed with extreme caution in respect to their complete accord with the requirements of the drawings or of local conditions. Certain paragraphs may be used time after time, but every time they are used they should be reread and studied for the applicability to the case in hand, otherwise a somewhat innocent clause for one building may be wholly misleading for another building. Too great emphasis cannot be placed on this rule in the use of the master specification, for it must be understood that it is not the *last* word in specifications for current work but is the last word written for specifications of the past that proved their value in actual use in construction operations.

If the paragraphs in the master specification have been numbered and the paragraphs are to be used verbatim it is only necessary to refer to them in the new specifications for copying by the typist. If, however, some changes are to be made in the standard paragraph it is best either to rewrite the paragraphs as they should read for the work in hand or else refer to this standard with a note that it will be corrected by dictation when being written up.

In order to maintain the master specification as an invaluable reference the specification writer should make notes on the backs of pages opposite the standard paragraphs that have been revised, so that when future reference is made to such clauses the various revisions, any one of which may be more desirable than the one in the book, may be found readily. Then, when sufficient revisions have been made to warrant the preparation of new pages this can be done and the master specification thus kept in the best possible shape for future uses. It is hoped the reader will pardon this and other digressions, as they seem necessary to call attention to matters supplementary to the thoughts under discussion.

IF paragraphs in the master specification have been prepared from specifications written by manufacturers or by trade associations or national technical society committees it behooves the specifications writer, in the interest of accuracy and keeping in touch with latest developments, to ascertain if these paragraphs or the data on which they have been based have been revised or altered in such a way as to make the standards so prepared somewhat unreliable. The time to investigate these questions, to a certain extent, is when a specification is being written. Even though correspondence with those who furnished the original data that is the basis of the paragraph may delay matters somewhat, the preparation of the specification need not be delayed. In such cases the writer usually is sure of what he wishes but simply lacks confirmative or supporting data and, upon such an understanding of the problem, he may proceed without introducing errors in subsequent work.

In the use of specifications prepared by manufacturers the specification writer must be careful in adopting the manufacturers' phraseology or trade terms in order that he may avoid unpleasant controversies with the contractor or the owner because of an incorrect use of the words or terms in question. If it is the intention of the specification writer to specify definitely the products of a certain manufacturer it is more honorable to state definitely that such and such items are to be as manufactured by the one whom he wishes to favor. If, however, the specifications are being written for public work, where it is impossible to specify articles by such means unless a certain number of similar articles of other manufacturers are specified, or if he wishes to introduce competition among several manufacturers either of whose products will be acceptable to him, he should state the conditions that must be met and the work that is to be performed by the article in question rather than describe any one manufacturer's article with a wealth of detail that will identify it to competitors as clearly as if the favored producer's name has been written out.

The blind use of manufacturers' or trades associations' trade terms may lead one into difficulty because of local interpretations that may be placed on these terms, which interpretations are not at all in accord with the interpretations placed on them by the author of the original specifications. It used to be customary in certain portions of the country to specify "trap rock" for use in concrete work and so far as known "trap rock" has never been used as an ingredient of concrete in those sections because it is not available without long and expensive freight hauls. In this case specifications for broken stone of a certain geological character available in the locality in which the building is to be erected is much

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more desirable and the specifying of "trap rock" for work in localities where it is not available is due either to ignorance of local conditions or to a belief that if it is available in one locality it surely must be available in any other locality. Indolence has a great deal to do with such errors, and the specification writer must be on his guard constantly not to give usage to terms subject to wrong or ambiguous interpretation.

Many manufacturers or trade associations prepare their specifications in such a way as to reveal a strong bias for peculiarities of the device they produce. Such bias is excusable and is to be expected from such sources. It is not to be condemned for the reason that it is excusable, but a specification writer who blindly copies such specifications without analyzing them is to be condemned as a grossly negligent member of the technical professions.

IN the preparation of new paragraphs that are to cover conditions peculiar to the operation, it is quite proper for the specification writer to write these paragraphs with a view of entering them in the master specification as a standard paragraph without further revisions. There are, of course, instances where a new paragraph or clause must be prepared that cannot be used in a standard paragraph for subsequent jobs, but the inclusion of it in the master specification with a note of caution in its use in subsequent jobs and a statement as to the reasons for such use will be helpful in accumulating reference data covering all possible situations that may arise in the specification work.

In the preparation of new paragraphs the catalog file and the specification data file should be referred to wherever possible instead of trusting to memory of past experiences or attempting to anticipate a condition that may not be true so far as the methods of manufacture and fabrication or construction are concerned. The only purpose in maintaining the specification data catalog file is to give to the specification writer when he so desires it the accumulated information of previous years and perhaps the more modern tendencies in certain fields of work. If by any possible chance an indecision is apparent, either one of these files will undoubtedly present matter that will clear up the question or will indicate how further data may be secured from manufacturers or associations that are interested in work of a correlative nature.

In the use of specifications written by other architects or engineers caution to as great an amount must be exercised in copying verbatim phrases, clauses or paragraphs as has been recommended in the use of specifications prepared by manufacturers. It is not unusual in writing specifications that are to be published for bidding and construction work to have in them numerous typographical errors which may be copied blindly without conveying any meaning at all in the new specification. One architect a number of years ago wrote specifications for year after year in which he said that the glass for wood sash should be "springed" in the sash. Curiosity impelled an investigation for the reason back of the use of this word and what it meant, and it was discovered that some years before some one in his office copied a specification written by another architect in which the word "sprigged" was misspelled. While this error did not entail any bad results, nevertheless to an intelligent estimator or contractor it indicated a certain carelessness that might at times give just cause for a general disbelief in the good intentions of the architect. Another illustration—in some sections of the country the piece of wood, marble or metal that is placed between the door jambs and with a slight projection above the floor level is called a saddle. In other sections of the country this is called a threshold. In the sections of the country that call this article a threshold the triangular shaped flashing that is placed between a pitched roof and the side of the chimney forming an acute angle with the roof is called a "saddle." In other sections of the country this "saddle" is called a "hog back." A blind use of the term saddle then may lead to complications of one kind or another unless the contractor wishes to read into the word as written the thought in the mind of the author of the specification.

IN the use of the standard specifications adopted by the technical societies, such as the American Society for Testing Materials, the American Society of Civil Engineers, or the American Concrete Institute, it is much better not to copy verbatim the specifications that it is desired to incorporate in the completed document but to make reference to them in such a way as to identify them without difficulty. It is not necessary that they be copied, as it is always possible for those who are using the specification to obtain copies of the standard specifications, and, as a matter of fact, almost every wide-awake contractor or manufacturer has them in his office files and is thoroughly acquainted with them. It may be suggested that reference not be made to specifications as adopted on a certain date but simply to say "the Current Standard Specifications."

The question of the advisability of specifying material under the name of the manufacturer is still open to debate and probably always will be. This is a matter that must be determined by the individual in each specific case, or a certain rule adopted by him for general guidance in his work. The use of the words, "or equal," has been condemned time without number and still it persists. There is no excuse for the use of this phrase, and it is impossible to understand why specification writers continue to use it in the face of all the opposition of previous years. Most of the opposing reasons that have been advanced are good and the specification writer should come out into the open, as suggested hereinbefore,

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and name one manufacturer, name several, or revert to a general description of the item desired that will convey to the mind of the manufacturer what is wanted.

The method of describing articles without mentioning particular names is to be commended because of the difficulties inherent in the use of one name only, and if the description is based on what is to be accomplished and the material that is to compose the article rather than on specific description of some certain article the resulting specification should accomplish a good solution of the problem.

CHINESE PAVILLION IN ST. LOUIS (MO.) ZOOLOGICAL GARDENS
T. B BARNETT & CO., *ARCHITECTS*

DEPARTMENT OF ARCHITECTURAL ENGINEERING

The FOUNDATIONS of the HOTEL PONTCHARTRAIN, DETROIT

A Study of the Utilization of Old Foundations for New Buildings

TO every architect there comes from time to time a problem as old as the building industry itself,—the advisability of using the foundations of a razed building for a newer building on the same site. This problem came to the architects and engineers for the 24 story building for the First and Old Detroit and Central Savings Bank of Detroit, Mich., which is being erected on the site of the old Hotel Pontchartrain. The solution may serve as a useful precedent, in similar cases.

The foundations of the Hotel Pontchartrain were placed in 1906 and attracted a great deal of attention from residents of Detroit as well as from visitors. The site was a central one and the execution of the work was difficult, the operations being commented on by the popular as well as the technical and legal press. The original plans called for an ordinary spread foundation. Trouble commenced soon after the excavation was started, for the material encountered was soft clay which not only forced in the sheet piling around the property but kept rising in the bottom of the excavation. This caused settlements in the adjacent streets and also settlements and bad cracks in adjacent buildings on both sides. The resulting lawsuits brought by owners of the adjacent buildings were long drawn out with consequent disturbance of building operations. A different type of foundation was then designed by the firm of Westinghouse, Church, Kerr & Company and was finally installed.

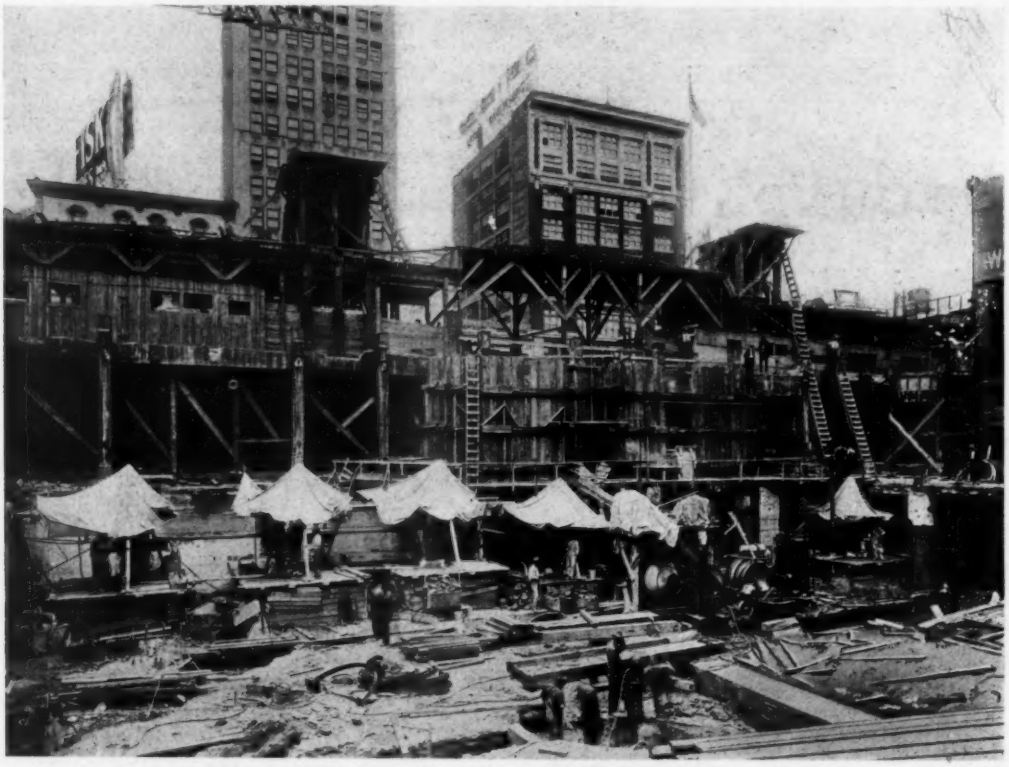
THE HOTEL PONTCHARTRAIN, DETROIT, MICH., ERECTED IN 1907, AS IT APPEARED IN MAY, 1920

It is typical of building work in general that records of work done, which would be of great value in future operations on the property, are usually hard to obtain when needed and this work was no exception. For example it appears that a test load sank six inches and was deemed to have been of no value, but there are no records of the amount of load applied nor of the area covered. It is known that borings carried to a depth of about 40 feet below the general excavation or about 75 feet below the curb, gave unsatisfactory results. The borings appear to have been made without a pipe and reports state that great difficulty was

experienced in pulling out the auger, because of the closing up of the bore holes. The material encountered to the depth bored was principally wet clay with some sand.

Several test piles were finally driven and satisfactory information was obtained. The decision was reached to cover practically the entire site with wood piles spaced about 2 ft. by 2 ft. 6 in. to carry a reinforced concrete mat which would distribute the column loads to the piles. The material was of such a nature and the piles were driven so close together that many of them were forced up about two feet when other piles were driven alongside. All attempts to redrive these piles developed new troubles so they were finally cut off to a fairly uniform elevation. No thought being given to the possibility that the foundations might possibly be utilized later for a heavier structure, a few small areas contained no piles and here the mat was thinner than in the load bearing sections. The general thickness of the mat was three feet and it was nowhere less than two feet thick. Reinforcement was scientifically and liberally used to distribute loads and very heavy retaining walls, damp-proofed on the side in contact with the earth, were built on the edges of the mat to enclose the site. No settlement of this foundation was ever reported and the building gave no evidence at any time of disturbance in the foundations.

Time passed and the building reached the hoary age, from the American business property dividend paying standpoint, of 12 years when it was considered that the site was too valuable to be used longer for hotel purposes. The decision was reached to remove the building, now called "old," and erect in its place a bank and office building. The architects and engineers for the new structure were Albert Kahn and Associates, Mr. J. Giaver of Chicago being later called in as consultant for the foundations finally adopted. Careful consideration was given to the possible use of the old foundations. The preliminary designs contemplated the use of terra cotta exteriors, to avoid weight, and the columns of the new structure were so located that they could utilize the reinforcement placed in the mat to distribute the old column loads. The weight per square foot of the full construction was less for the new than for the old building and it was possible to utilize the old foundations with their uniform pres-

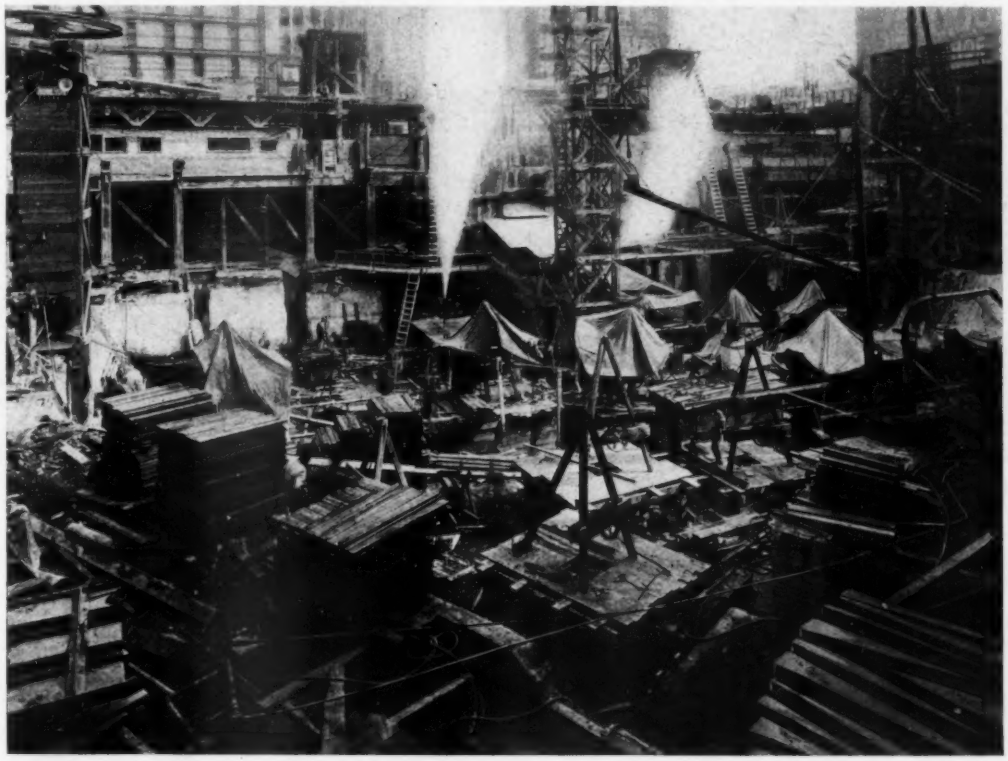


STARTING THE CAISSONS FOR BANK AND OFFICE BUILDING ON THE SITE OF THE OLD HOTEL PONTCHARTRAIN, DETROIT. IN THE FOREGROUND THE CONCRETE MAT IS BEING CUT FOR A CAISSON

sure over the whole area, despite the fact that the new building was several stories higher than the building it was to replace.

Then the changes which every architect knows are inevitable, came, and the whole scheme was changed. The number of stories was increased to twenty-four and an additional wing was added to the rear of the building. The decision was reached to use stone instead of terra cotta for the street fronts and the column spacing was changed better to suit the ground floor occupancy. This so increased the loading over the area that it would have been necessary to drive piles in the few small spaces in which piles were considered in 1906 as not needed. The driving of additional piles, however, would not suffice as it would also have been necessary to provide an extensive system of grillages to transfer the new column loadings to the piles, since the reinforcement in the portions of the mat. The possible re-use of old foundations furnishes a good argument for reinforcing all mats in the top and bottom with a uniformly spaced network of steel, with one or two more layers properly spaced to resist shear in case it is decided to shift the location of columns.

In the building under consideration another question came in to settle finally the type of foundation, namely the possibility of the construction of subways in the adjacent streets. This, together with the thought that the great height and weight of the building should call for a deep foundation, led to the adoption of the open caisson type, known as the "Chicago Caisson." These caissons were originally designed for a depth of ninety feet below the curb but after they reached a depth of eighty-five feet it was decided to stop them at that point. Most of them consist of a shaft with three bells, the type



CONCRETING THE CAISSONS FOR BANK AND OFFICE BUILDING ON THE SITE OF THE OLD HOTEL PONTCHARTRAIN, DETROIT

mat was designed to distribute the former column loads and did not contemplate any shifting of columns. This is an item of considerable importance and one often neglected in the design of mats. When a mat is scientifically designed the steel is placed to take care of shearing stress imposed by the column loading and shear reinforcement is omitted in other

usually adopted for deep foundations for buildings in Detroit.

A Chicago Caisson is really a column of concrete serving as a foundation for building columns. The term "open caisson" indicates the method of sinking, which is that adopted for working in caissons but without an air chamber, the sinking being accom-

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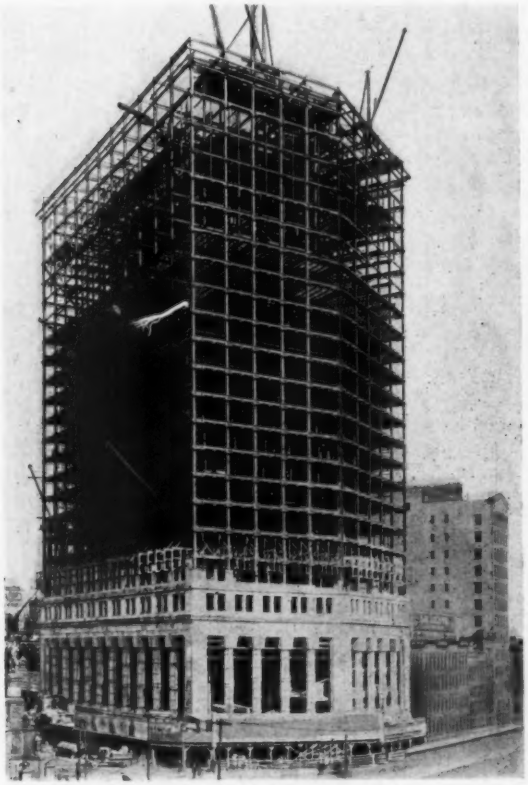
plished in stages of a few feet, the excavated portion being lined with vertical wooden planks held in place by iron rings. In the two illustrations of the sinking of the caisson foundations the short pieces of planking are shown piled ready for use and near the foreground in one view is seen a pile of the rings. Each ring is in two half sections with ends turned out to form abutting joints which are held together with bolts. Around each hole a platform is built to carry a windlass and a frame supports a canvas covering for protection against rain and too strong light. A cable operated from a central engine turns the windlasses which bring up the buckets of excavated material. Whether the wooden lining is left in place or removed before the concrete is poured depends entirely upon the character of the material, which, when very soft has been known to flow into unlined holes with such pressure as to squeeze the concrete into something resembling a string of sausages.

A caisson foundation usually goes to solid rock because of fear that future excavations in the vicinity below the basement level of a building, may drain the soil of ground water and cause settlement. This was considered in the case of the bank building here described but was given up because of experience in sinking similar caissons in the Ford Building, Detroit, where a water bearing stratum was encountered which carried considerable gas. The water was under such pressure that it rose into the building through the caisson shafts and two workmen in the basement were asphyxiated by the gas which accompanied the water. It was feared that the same difficulty would be encountered in the foundations here described so the bell type of caisson resting on soil was adopted.

The caissons were designed for a soil pressure of 9,000 lbs. per sq. ft. for the column load plus the weight of the caisson. Being in effect a spread foundation, a discussion arose as to whether it would be best to have one bell at the lower end, which would necessitate quite a chamber, or to have the same area in three smaller sized bells. It was decided that since the character of the soil at the elevation of each of the three bells was practically the same, there could be no difference in bearing pressure except the slight difference caused by depth, which of course is an indeterminate factor. The difference in expense was in favor of the three bells and the caissons were therefore of that type.



IN APRIL, 1921

IN JULY, 1921

BANK AND OFFICE BUILDING ON HOTEL PONTCHARTRAIN SITE, DETROIT, MICHIGAN

Holes were cut in the original concrete mat of the size required for the caissons and as the excavation proceeded the piles which were encountered were cut off, this being a troublesome matter. An attempt was made to draw the piles but as it required a force of sixty tons for each pile this method was abandoned. Nothing was said as to whether a water jet was used in connection with the attempts to draw the piles but it is presumed that this was done, although the pulling force mentioned seems large in connection with properly arranged jets. No difficulties were encountered in the sinking outside of the cutting of the piles. With some minor alterations the entire mat and enclosing walls of the basement and sub-basement of the old building were allowed to remain and become a part of the new structure. At the time the information was received no settlement had been observed, although the building was practically completed so far as the heavy construction was concerned.

Wage Differential for Building Trades Mechanics

FROM E. T. Thurston, secretary of the General Contractors of San Francisco, comes a memorandum on wage differentials, taking into account the relative skill and responsibility of the various trades involved, the hazards of employment, and the personal equipment of tools required, as stated in the June 23, 1921, issue of *Engineering News-Record*. For the purpose of emphasizing the inequities of prevailing differentials he takes the carpenter as the most essential, skilful, and responsible, as well as the most expensively equipped workman in the building trades and refers all other workmen to the carpenter as a base, as indicated in the accompanying table.

An index number set opposite any craft is intended to indicate in rate per cent. the relative position of workmen in that craft to the carpenter, with respect to the considerations noted above. Thus, the required skill and responsibility of the common laborer is nil; that of the bricklayer 80 per cent. of that of the carpenter.

Ratings as to skill and responsibility and equipment are based upon a brief inquiry into the information and experience of members of the contractors' association. The ratings as to hazard are based on the experience of insurance companies as reflected in the current premium rates for workmen's compensation insurance, except in the case of composition roofers, who are not distinguished in the insurance rating manual from plate and tile roofers, whose work is far more hazardous.

The fourth column of the table shows the combined averages of the ratings for each craft, and the fifth column a scale of daily wages based on $7 for the carpenter, but recognizing a minimum of $3.50.

The table here given is merely a tentative one, based upon as complete information as was at hand at the time of the compilation.

WAGES IN THE BUILDING TRADES TAKING INTO ACCOUNT SKILL, RESPONSIBILITY, HAZARD AND EQUIPMENT

Trade	Skill and Responsibility	Hazard	Equipment	Combined Ratio	Scale of Wages
Bricklayers	80	72	12½	55	$3.85
Carpenters*	100	100	100	100	7.00
Cement finishers	80	60	12½	51	3.57
Concrete labor	10	100	0	37	3.50
Electrical workers	80	19	25	41	3.50
Elevator constructors	80	93	0	58	4.06
Engineer, hoisting	50	53	25	43	3.50
Hod carriers, brick	10	72	0	27	3.50
Hod carriers, plaster	15	53	0	23	3.50
Housesmiths, ornamental iron	90	65	25	60	4.20
Housesmiths, reinforced concrete	50	100	5	52	3.64
Laborers	0	100	0	33	3.50
Lathers	50	53	5	36	3.50
Marble setters	75	11	25	37	3.50
Painters and glaziers	75	120	5	67	4.69
Plasterers	90	53	12½	52	3.64
Plumbers	80	27	12½	40	3.50
Roofers, composition	10	60	0	23	3.50
Sheet-metal workers	80	83	25	63	4.41
Steel workers	50	252	5	102	7.14
Stone cutters	80	25	25	43	3.50
Stone setters	80	72	25	59	4.13
Tile setters	75	11	5	30	3.50
Teamsters	10	30	0	13	3.50

*Carpenter used as base with per cent. of 100. Minimum daily wage, $3.50.

Cements for Emergency Repair

HOSPITAL superintendents, particularly those connected with outlying institutions are frequently called upon to make emergency repairs and the following suggestions are given by *The Modern Hospital*:

Freshly prepared curd from soured skim milk is mixed intimately with one-fourth its bulk of lime, which has been slaked by adding just enough water to cause it to fall to a powder. This cement, which is good for wood, marble, metals, and glass, should be used immediately as it soon sets to a hard mass. When used on marble or wood, it is advisable first to paint the surface with a solution of casein (curd) in borax solution or ammonia, to fill the pores.

Powdered and sifted quicklime mixed to a paste with white of egg quickly sets to a hard cement that can be used on ivory, marble, glass, porcelain, etc.

A waterproof cement for cisterns, casks, etc., is made from glue, mixed with one-fourth its weight each of boiled linseed oil and red ochre. The glue is soaked and melted in as little water as possible and the other ingredients are then thoroughly mixed in. The cement should set in two or three days.

Powdered whiting or air-slaked lime mixed with hot glue will adhere to wood and metals. Liquid glue containing acid should not be used.

Litharge and glycerine mixed to a paste form a cement that adheres strongly to metals, glass, etc. It is not softened by heat and resists the action of water. Beeswax and rosin melted together in the proper proportion for the desired consistency form a cement that will adhere strongly if applied to warm metal or glass surfaces. It may be mixed with whiting, etc., to give it more body.

Shoemakers' wax and shellac melted together at

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not too high a temperature give a more tenacious cement than the preceding. The metal or glass to be cemented must be hot enough just to melt the cement. By changing the amount of shellac from one-half to two and one-half or three times the weight of the wax resulting cement will vary from moderately ductile to quite hard and brittle form.

An excellent aquarium cement is made by mixing ten parts each by volume of litharge, fine sand, and plaster of Paris and one part of powdered rosin with enough boiled linseed oil to make the mixture somewhat stiffer than ordinary putty. The quarium can be filled with water in three or four days, even though the cement may not have set hard.

Rubber cement is made by dissolving crude rubber in gasoline or benzine (benzol). Other ingredients, such as dry mineral fillers, gums, or resins, are sometimes added to adapt the cement for particular purposes.

In cementing two rubber surfaces together they should first be thoroughly cleaned with gasoline. This is absolutely essential to secure satisfactory adhesion. If the surfaces of the rubber are very smooth, they should be roughened slightly with sand-paper and again cleaned. A small quantity of cement is now spread over each surface, and after allowing a few minutes for the major part of the solvent to evaporate the two surfaces are stuck together and kept under pressure for several hours to give the solvent time to evaporate completely.

NOVEL CONCRETE ROOFING CONSTRUCTION

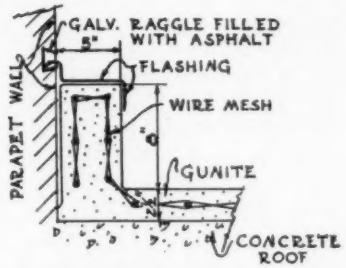
IN 1916-17 a roof covering was installed on Building A of the Ford Motor Company at Detroit. The conditions are so severe and unusual, the construction so novel and the results so satisfactory that those interested in roof covering will find this description worth careful consideration. The roof of this building is 85 ft. wide and 900 ft. long. It is divided into panels 85 ft. square which pitch, with a fall of 18 in., to a sump in the center. Above the roof, supported on small brick piers, are two lines of large pipe to which are attached revolving spray heads. Through these heads the water used to cool the large gas engines is pumped, projected into the air and in falling to the roof is cooled. The water returns to a reservoir and is recirculated. Thus the roof is subjected to a continuous flooding of hot water during the working days of the week and is dry on Sundays when in some instances the thermometer has registered 20 degrees below zero. These are very severe conditions to be imposd on a roof covering.

GENERAL VIEW OF COMPLETED ROOF SLABS. SLAB IN FOREGROUND IS ON ONE OF THE BAYS FIRST TREATED, SHOWING FENCES AND SPRAY PIPING IN PLACE

A number of bays were covered with several plies of asphaltic felt and pitch, aggregating about 5/8 in. in thickness. Elevator pent houses projected above the roof, brick piers were built on the structural 6 in. concrete roof slab and numerous humps were made where shafting hangers were attached to the roof. The felt and pitch roofing was made continuous over the ridges between the several bays and was flashed into the parapet wall on one side, into the pent house walls and the brick pipe support piers. This roof covering failed and leakage through the concrete slab if allowed to develop would cause serious damage in the pattern and dynamo winding shops, moving picture laboratories and other occupancies. Mr. John V. Schaefer was invited to undertake the rehabilitation of the roof covering by the use of the cement gun.

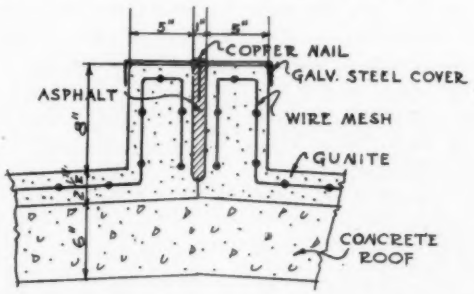
Two bays were covered to a depth of 2 in. with a 1 to 3 concrete reinforced in two directions with 0.04 sq. in. of steel per foot of width in the form of wire mesh, in two layers. The roof was covered with pitch and the two layers of wire mesh were laid on it, after which the concrete was shot on while the wire was raised well into the body of the slab. At the ridges curbs were constructed, the construction joints filled with mastic and the curbs covered with flashing. Flashing was also used along the wall.

Some small cracks opened after a time and there was slight leakage, which, however, could not be traced to the surface cracks. The work was so satisfactory that two additional bays were treated in the same manner and are still in use.



SECTION SHOWING ARRANGEMENT OF FLASHING WHERE CURB COMES AGAINST PARAPET WALL

In 1917 four additional bays were added to the building and the same general method was followed, excepting as here described. The 6 in. concrete roof slab was finished smooth and over this was placed a ½ in. layer of sand which was covered



SECTION THROUGH EXPANSION JOINT BETWEEN ADJOINING BASINS

with a layer of tarred felt to prevent the sand from being blown away by the cement guns. On this, with suitable spacers, were placed the two layers of wire mesh as before, and in addition there was used a ¼ in. square rod 18 in. centers in both directions. Through this was shot a 2½ in. layer of 1 to 3 mix concrete. The brick pipe-support piers were built on top of the concrete and curbs and wall flashing were constructed.

In this way the finish concrete slab was kept entirely free, except at the sump, from the roof slab and the parapet, and free to expand and contract at will without reference to any other structure. These basins have no surface cracks and no leaking has been reported to date.

Contraction and expansion occur in concrete as in all other materials. In this case, the finish concrete slab was attached to the roof structure at the sump and at no other place, which left it free to move except for the frictional resistance between it and the substructure. This frictional resistance on such a large area is considerable, and to prevent disruption of the slab due to temperature changes, steel is needed to distribute and equalize the stresses. When the edges of the concrete slab are fixed, by attachment to a wall or otherwise, contraction causes a shortening of the slab and if this stress is as much as 300 lb. per square inch, the slab cracks at one or more points and the sum total of the width of the cracks is equal to the total amount of contraction.

The designing of the finish slab was based on this theory. The co-efficient of expansion of concrete being known, the total probable stress was computed. Based on a tensional stress of 300 lbs. per square inch in the concrete the thickness of the slab was determined. The amount of steel was also determined on the basis of the total stress due to assumed temperature changes, for, when the concrete cracks the steel must carry all the stress. Steel and concrete have practically the same co-efficient of expansion and the embedding of the steel in the slab is equivalent to making a new material. By placing the steel in mesh form in small units closely and uniformly distributed, cracks which may appear in the concrete will be microscopic in width and be so shallow that water cannot go through the slab.

By the use of the cement gun, the concrete slab is impacted in place by compressed air and is an extremely dense, uniform material. It does not have a smoothly finished surface and it is probable that if the surface were troweled smooth, it would result in such a disarrangement of the particles that it would materially reduce the density of the surface with resulting loss in resistance to the penetration of water. The natural surface is satisfactory for roofing purposes. The record of this roofing under very severe exposure, entitles it to careful consideration for places where a permanent roofing is necessary.

National Egress Code

THE National Fire Protection Association was requested by the American Engineering Standards Committee to undertake the preparation of a National Egress Code covering the subject of egress in all of its ramifications. The Association accepted this invitation, and asked the Committee on Safety to Life to undertake the work. This follows the successful operation of the Factory Egress Code approved in 1918, and the presentation of a report on Proposed Egress Requirements for Department Stores at the annual meeting in June, 1921. The subject of egress requirements for schools, it is expected, will be completed in time for action at the annual meeting in 1922.

The tentative plan of the Committee is to provide standards for every means of egress, and to establish the egress requirements for all important classifications of buildings. It is expected that the work will take several years to complete, but it is hoped to complete one or more divisions each year.

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BOOK REVIEWS

HANDBOOK OF BUILDING CONSTRUCTION. Editors in chief, Geo. A. Hool and Nathan C. Johnson, assisted by 44 specialists. Two volumes; 1474 pp., illustrated, 6 x 9 in. flexible binding. New York, McGraw-Hill Book Co., Inc.

A TIME arrives in the career of every man when he feels the need for classifying his working data and indexing it for instant use. How little is really needed by any individual is seen on examining his personal note book, provided he had a good basic education in his vocation. In 1884, Mr. Kidder issued in handbook form the notes he had found useful as an architectural engineer and builder and the book became popular and in time well nigh indispensable. Today it is fat and represents the work of a number of men who keep it up to date since the death of the author.

The work under review is a twin to Kidder, for it covers the same ground. The difference is that the first edition of Kidder appeared when there were few architectural schools in the country and before the skyscraper was invented. Technical data required by architects and builders were simple in character and were given whenever possible in the form of tables, formulas usually being in arithmetical form rather than algebraic. In all the later editions the original plan has been closely adhered to, the work not being so much a treatise as a working manual kept up to date. This new two-volume treatise edited by Hool & Johnson is the work of 46 men, each a specialist in his line and faithfully represents conditions as they exist today. An endeavor has been made to omit nothing which can possibly be of value to an architectural engineer; which endeavor has met with success. One can imagine that the two editors-in-chief sat down with a specification reminder before them and then selected the contributors, each for his special fitness to deal with an assigned subject. In spite of the large number of contributors it is to all intents and purposes a single treatise, which implies a tremendous amount of well-directed labor on the part of the two editors-in-chief. It is a work for technical men employed in the offices of architects having a large practice and for them it is a good treatise on architectural engineering from the design of the structural frame to the design and installation of plumbing, heating, lighting, ventilation, refrigeration, etc., with all finishing of surfaces, as well as discussions on the principles involved in the layout of special purpose buildings such as schools, colleges, churches, museums, railway stations, etc. The general practitioner in small and medium sized cities who does most of his own work and whose schooling did not include a college course in mathematics and mechanics will find many of the pages terrifying in appearance. Two thirds of the work, however, is non-mathematical and the numerous worked examples in the stiffest looking chapters do much to reassure those who are afraid of mathematical expressions.

ENGINEERING CONSTRUCTION IN MASONRY AND CONCRETE, by William Henry Warren, LL.D. 500 pp., 200 figs. in text, 6 x 9 in., cloth. New York: Longmans, Green & Co.

THIS book contains Part II of a two volume treatise, Part I dealing with Steel and Timber. The author is Challis Professor of Engineering and Dean of the Faculty of Engineering, University of Sidney, N. S. W. It is an engineering treatise on design in which American data are so freely quoted and used that the nationality of the author may be forgotten, for he has not written a book useful only to British engineers. There is a chapter devoted to stress-strain relationship in brickwork, concrete and stone masonry compared with steel, followed by a discussion of earth pressures against retaining walls. The second chapter discusses the stresses developed by earth pressure in the bracing of trenches and tunnels, with the design of sheet piling, tie rods and anchorages. In four chapters the author takes up limes, cement, mortar, brickwork, building stones, clay and concrete pipes and properties of concrete. Reinforced concrete building design fills four chapters followed by a chapter on retaining walls and one on stresses in grain bins. A chapter is devoted to high masonry dams; one to bending with axial forces; one to reinforced concrete arch ribs with fixed ends; one to abutments and piers and one to foundations. In an appendix is presented a method of analysis in the rigid arch rib which has been developed by W. A. Miller, Lecturer in Civil Engineering, University of Sydney. It is an admirably written and well arranged basic text book on the subjects treated.

PROPOSED SPECIFICATIONS FOR AN OFFICE BUILDING, GRADE E. Pamphlet; 6 x 9 in. 10 pp. Pub. by National Fire Protection Association. Boston, Mass.

THIS pamphlet is the report of an endeavor to meet an ever increasing demand to render ordinary "non-fireproof" commercial buildings reasonably "slow-burning." A typical joisted brick building has been selected as the first example to be treated. It is intended to represent the highest grade of fire safety reasonable to be secured in such construction. It is believed that if such a building were under the protection of even a moderately efficient fire department, a fire could be confined to one story.

CURRENT NEWS

Happenings and Comments in the Field of Architecture and the Allied Arts

Frank E. Davis, One Time Baltimore Architect, Dies in California

WORD has been received in Baltimore of the death of Frank E. Davis, one of the architects of the old school.

Mr. Davis retired some years ago because of ill health and moved to California to make his home with his sons, Francis P. and Walter Swindell Davis, well known practising architects in Los Angeles.

Mr. Davis, besides his local practice in Baltimore and other cities in Maryland, did much work in Virginia and lower Pennsylvania, including many churches, schools and public buildings. He studied with the old firm of Lind and Murdock and was later associated with Thomas Dixon; in the later years of his life he was also associated with his brother, Henry R. Davis.

He died in his 82nd year and is survived by his widow and five children.

Chicago Gets Biggest Architects' Library

THE Buy Your Home in State Street Exposition, Chicago, is to install a library and clubrooms for architects, to be operated free. Leading architects are to meet to arrange for the purchase of books, photographs, magazines and foreign studies to make the library the most complete in America.

One section will be devoted to works on landscaping, interior decorating, city planning, financing and lines related to architecture.

Landscape Architect Ernst G. Frodenstrom is beginning to get the bare 400x200 floor into shape. Hundreds of evergreen trees in tubs are being set up, hedges are being planted, flower boxes are in the windows. About $100,000 is to be spent in transforming the floor into a suburban village. In the exhibit material dealers, architects, real estate men and every line having to do with home building will rent space permanently.

Housing in Pittsburgh

A MOVEMENT is under way in Pittsburgh, sponsored by the Chamber of Commerce of that city, to build, this year, 1,000 houses at a moderate price, to be sold to families on easy terms. The Pittsburgh Chapter of the American Institute of Architects and the Pittsburgh Architectural Club have offered their services without charge in preparing the plans, and material dealers have offered marked concessions in prices.

Similar action in other cities will do much to effect the much needed relief in the housing situation existing today.

Javanese Show Engineering Skill in Rope-Bamboo Construction Work

THE Javanese attain remarkable accomplishments with the use of the bamboo. An interesting specimen of the possibilities of the material and the people is to be seen in a bridge which has been in constant use on the island for a great many years with no more attention than a little patching once in a while. These people have no nails, no iron, no true wood; they are forced to rely entirely upon bamboo for the structural parts, and upon a rope of their own manufacture to effect the junctures.

The span is almost 150 feet, and the width of the roadway some four feet. The bamboo columns at either side of the stream are built up of a double length of from fifty to sixty bamboos, tied up with a rope and firmly pressed together by forcing a quantity of wedges between rope and bamboos. Such columns are found to be of unusual strength and elasticity.

The original element which the Javan natives have brought to the construction of these bridges is the rope. This is made of a fiber taken from the native aren-palm, which grows all over the island. It makes a rope that resists effectively the heavy, decaying action of the hot and damp tropical climate with its legions of fungi; in fact, it lasts for many years without any indications of rotting. So between this rope and the bamboo the natives are able to achieve a semi-permanent structure for which it would be hard to find a peer on the ground of cheapness and durability.

Will Rebuild Ruins

Mexico to Reconstruct Great Pyramids of Ancient Tribes

AN appropriation of $50,000 for reconstructing the ruins of San Juan de Teotihuacan has been approved by President Obregon.

San Juan is the site of the two great pyramids of Mexico, one to the sun and the other to the moon. Adjacent to these piles is a buried city which flourished probably 4,000 years ago.

Concerning Russian Architecture

Russian Style Is Not to Be Mistaken; Slav Touch Is Apparent

RUSSIAN architecture is unmistakable, states the *National Geographic Magazine*. A house, a church, a factory, or just a plain shed will show the touch of the Slav. Russian elements are noticeable in the windows and doors, in little and big lines of decoration, as well as in the general plan and shape

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of a building. No matter how poor the cottage may be, there is something distinctive about it. Even those miserable little refugee shacks built of tin cans filled with mud "sported" a Russian cornice, or a Russian window frame, though these racial architectural touches meant much extra labor. The Russian architecture is unique, in that it can carry a lot of what we call "gingerbread" and not appear cheap, trashy or bizarre.

Seeks $2,000,000 Archives Building

AN appropriation of $2,000,000 for a government archives building at Washington, D. C., would be authorized under a bill introduced in the House recently by Representative Elliott, of Indiana. At the present time documents of priceless value ranging all the way from the Declaration of Independence to the draft records of 4,000,000 men are exposed to destruction.

The bill would make the librarian of Congress custodian in charge of building, and in it would be preserved all historical documents, records or relics, now owned or to be acquired by the government.

A "Model Town" for Canada

THE town of Nicola, British Columbia, has recently been sold to a former member of the British parliament, who plans shortly to convert it into a model English town, a perfect village green replacing the present business section. In addition to acquiring the town he purchased twenty thousand acres in the immediate vicinity. Plans under contemplation include the construction of a summer resort for tourists and an irrigation system.

Time Honored Wall Papers

Those in Old Houses of Portsmouth, N. H., Present Marvelous Scenes

THE antique wall papers (found in the Colonial "mansions" of Portsmouth, N. H.), marvelously preserved, are too animated for restful companionship, states Agnes Repplier in a recent issue of *Harper's Weekly*. Only a nerveless race could have gazed all their lives upon such a monotonous variety of incidents.

Thomas Bailey Aldrich tells us that a typical paper, familiar to his childhood, displayed over and over again a group of English country people wearing Italian hats and dancing on a lawn which ended abruptly in a sea beach, on which stood a fisherman angling for a whale, and wisely indifferent to the issue of a terrific naval combat which was being fought just beyond the reach of his fishing rod.

Grander in scale, but as irrelevant in detail, is a very handsome paper on the walls of the athletic club, where we behold gaily dressed ladies and gentlemen passing under Virginia's Natural Bridge to get a good view of Niagara Falls, and turning from the barbarous splendor of an Indian war dance to witness a drill of West Point cadets.

The painted walls of the Warner house, discovered by chance in 1850, present a wide choice of disconnected subjects. Abraham prepares to sacrifice Isaac under the supervision of Governor Phipps, and foreign cities of impossible picturesqueness stretch before the eyes of fair Priscilla at her spinning wheel.

Grant LaFarge Honored by Princeton

AT the 147th commencement of Princeton University, C. Grant LaFarge, of New York City, was awarded the honorary degree of Master of Fine Arts. Dean West, in presenting the candidate for honorary degree, used the following formula:

"Christopher Grant LaFarge, former vice-president of the American Institute of Architects, past president of the Architectural League of New York, trustee and secretary of the American Academy in Rome, an artist of constructive originality, with brilliant and versatile gifts, tempered by sound historical judgments; designer of impressive civic, domestic, academic, and ecclesiastical structures; the incisive critic to whom his fellow-artists gladly come for searching review of their plans, widely read in literature, a writer of vivid and graceful style, a lover of outdoors—at home on swift water or in the winds, a living impulse in the American Academy in Rome, a humanist ardently devoted to the cause of art and letters for the ennobling of American life."

Paris to Have a New Latin Quarter

University City to Be Founded Outside of City, According to Plan Under Way

IT is announced that the long discussed project for the transfer of the students' quarter of Paris from the old Latin quarter to the outskirts of Paris on space made vacant by the demolition of the wall of Paris appears to be on the way to realization.

The city of Paris will sell about twenty acres of land for the building of a students' city, including lodgings, recreation grounds and gymnasium.

The University of Paris will undertake the construction of the necessary buildings.

It is not expected that this will greatly change the aspect or the characteristics of the Latin quarter, but it will provide accommodations for many foreign students who, unable to find lodgings, are practically excluded from the university.

"Roosevelt House"

Erection of Building at Harvard University Is Proposed

A PROPOSAL for the erection at Harvard University of a building to be known as "Roosevelt House" was made in a recent report to the Associated Harvard clubs by a committee of alumni.

The building, as proposed, would contain a working floor for the use of departments of the university, and particularly for conferences between tutors and students, together with a memorial reading room where Roosevelt memorials of all kinds would be kept.

The committee suggested that all books and state papers written by the former President, and books written about him, together with hunting trophies and other material relating to him, should be kept in the reading room, with the hope that his room "would be resorted to by all who wished to know or write about him."

The chairman of the committee which presented the report is Charles G. Washburn of Worcester, classmate and biographer of Col. Roosevelt.

Win Fellowships in Academy in Rome

AWARDS in fellowships in architecture, painting and sculpture in the 1921 competition for the Prix de Rome were recently announced by the American Academy in Rome.

Winners were Frank H. Schwarz, New York, painting; Edward A. Amateis, sculpture, New York; V. L. S. Hafner, architecture, New York. The fellowships carry three years of post-graduate study in the Academy, with liberal allowances for travel and other concessions amounting to $1,000 a year.

Book Notes

THE ENGLISH VILLAGE CHURCH: EXTERIORS AND INTERIORS. By ALFRED HOPKINS. 112 plates. Full cloth, size 9 x 12. William Helburn, Inc., New York.

DURING an extensive trip awheel through rural England, Mr. Hopkins visited most of the churches that are illustrated in this book. With this intimate knowledge of the various structures, he has been able to select the pictures that illustrate them with particular reference to the best points of view.

Naturally a topic so alluring as the English country church has been many times discussed and often illustrated. That feature of the present book that sets it apart, and in some measure above previous books on this subject, is exactly in the better taken views and their selection as to the correct accentuation of the architectural interest.

The work has a very decided suggestive value and should be a part of the architect's working library.

ITALIAN RENAISSANCE FURNITURE. By Wilhelm von Bode. Translated by Mary E. Herrick. Full cloth. Size 7 x 10 inches, with 134 illustrations. New York, William Helburn, Inc.

THE very considerable interest shown by architects and connoisseurs in period styles in this country has made the publication of this interesting series of photographs of the best types of furniture during the period of the Italian renaissance most timely. Aside from its suggestive value in matters of design, the book is of interest on account of the literary character of the accompanying article on the production of furniture and the perfection of its design in Florence and Tuscany during the Middle Ages.

THE BOOK OF BUNGALOWS. By H. Randall Phillips. Full cloth, 160 pp., size 6 x 8½. London, Country Life, Ltd. New York: Charles Scribner's Sons.

THIS book treats the bungalow in design, plan and general equipment, entirely from the English point of view. It is purely for the prospective bungalow builder and contains little not already known by architects and builders. Many of the designs are, however, of interest as they present the livable and thoroughly domestic elements that are essential in this type of dwelling.

SHADES AND SHADOWS. By DAVID C. LANGE, M. S. Full cloth, 135 pp., size 5½ x 8½ inches. New York: John Wiley & Sons, Inc.

THIS book has been compiled for use as a text-book on shades and shadows by architectural students. As architectural students in many colleges receive their early training under engineering teachers, an attempt is made to serve such students by assuming the point of view at the outset of such engineering training, thus leading them directly to the more artistic point of view.

The subject is treated by the author with complete authority and the book will be useful to the student in architecture.

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The AMERICAN SPECIFICATION INSTITUTE

127 No. Dearborn St., Chicago

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IT is exceedingly gratifying to the Board of Governors to be able to announce that the roll of membership is increasing steadily, the responses coming from all sections of the country. It is felt that the organization of the American Specification Institute has been accomplished at an opportune time, for many architects and engineers have now time available to devote to their share in the activities of the Institute.

There is evidenced a strong sense of appreciation of the value of co-operation among the members and prospective members in the creation of a national organization for the study and improvement of specification writing. The Board of Governors earnestly requests the members to assist them in spreading the news of the creation of the Institute and to present to men eligible for membership the advantages that are to be derived from such an association. The list of members published in The American Architect, issue of June 22, together with the list of additional members given below should be studied, and members located in the same vicinity should arrange meetings for the discussion of the activities of the organization and of the bulletins and other work submitted to members for their information and criticism.

When the membership in any one city warrants it, the Board of Governors wishes to organize a chapter or section as it is realized more concerted action and perhaps greater enthusiasm for the work to be done will be possible under such a scheme of organization. The Executive Secretary's office will endeavor to render all possible assistance in the organization of such regional groups, and it is hoped that by next fall several sub-organizations of such character may be formed.

The members enrolled since the last publication are as follows:

J. R. W. Ambrose, Engineer, Toronto, Canada.
Buck & Sheldon, Engineers and Architects, Hartford, Conn.
T. E. Billquist, Architect, Pittsburgh, Pa.
John T. Comes, Architect, Pittsburgh, Pa.
Sigmund Braverman, Architect, Akron, Ohio.
Winsor Soule, Architect, Santa Barbara, Cal.
J. William Beal Sons, Architects, Boston, Mass.
J. Edward Keirn, Architect, Pittsburgh, Pa.
Eugene John Stern, Architect, Little Rock, Ark.
David S. Castle, Architect, Abilene, Texas.
William Rice Pearsall, Architect, New York City.
Frank Oliver Adams, Jr., Architect, Tampa, Fla.
W. M. Vories & Company, Architects, Omi-Hachiman, Japan.
Louis H. Jordan, Architect, Winnipeg, Canada.
Arthur Van Horn, Architect, Bismarck, N. D.
Lewis W. Foster, Architect, Boston, Mass.
J. A. Fouilhoux, Architect, New York City.
Leslie McQuilkin, Architect, Toledo, Ohio.
Herbert D. Rushmer, Architect, Utica, N. Y.
H. F. McCray, Architect, Reno, Nev.
George E. Conrad, Architect, Chicago.

Work on the bulletins has been delayed somewhat because of the length of time some members have had to take to formulate their suggestions.

WHILE all members have not responded there are quite a number of very excellent criticisms and suggestions which are now being studied and tabulated by the Board of Governors for later submission to the membership. Subsequent bulletins will be issued with regularity upon the understanding that criticisms or suggestions must be submitted at the time set in the letter accompanying each bulletin. It is understood, of course, that many members find it difficult to devote time to these matters during office hours, and it is hoped the work of the Institute eventually will so co-ordinate the routine work having to do with specification writing that time will be available for consideration of the Institute bulletins.

Attention is directed to our new member from Japan, W. M. Vories & Company, who have expressed an appreciation of the objects and aims of the Institute and a desire to share in the benefits to be derived from membership.

The Executive Secretary's office has received from a nationally known trade association one of the most thoroughly prepared specifications, accompanied by supplementary notes and explanatory data, that has ever been produced. A request has been made that a certain number of copies be made available to members of the Institute, arranged for filing in the members' loose leaf cover if they desire it placed there. The Specification Institute will endeavor always to have placed in the hands of its members all similar data, especially when it has been prepared as well as the series under discussion.

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TOWER—RAVENNA, ITALY

(A purposely constructed leaning Tower)

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